# EDUCATION DEPARTMENT

AT THE

## COLONIAL AND INDIAN EXHIBITION.

1886.

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# EDUCATIONAL SYSTEM

OF THE

VITH THE COMPLIMENTS OF THE MINISTER OF EDUCATION.

FOR

Williamstown *Mechanics' Institute,*

Toronto:
PRINTED FOR THE DEPARTMENT.

1886.

Ministry of Education, Ontario
Historical Collection

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# EDUCATIONAL SYSTEM OF ONTARIO.

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## INTRODUCTION.

THE Educational progress of the Province of Ontario (formerly Upper Canada) was, at first, of very slow growth.

In 1798 an unsuccessful attempt was made to endow out of the public lands, granted for that purpose by George III. to the extent of 800,000 acres, a grammar school in each of the four districts into which the Province was then divided, and a central University at York (now Toronto). But the sale of these lands was so slow, and the price per acre obtained for them was so small, that the revenue derived from this source barely defrayed the cost of management, consequently the grammar school scheme was abandoned, as well as that respecting the college.

In 1807 the first legislative enactment was passed, establishing a classical and mathematical school in each of the eight districts into which Upper Canada was then divided. A grant out of the public revenue of £80 sterling ($400) a year was made to each of these schools.

In 1816—nine years after the establishment of the grammar schools—the Legislature of Upper Canada passed the first common, or elementary, school law for that Province. It appropriated $24,000, or nearly £5,000 sterling, per annum, for the support of the schools to be established; and provided for the management of these schools by trustees elected by the inhabitants in the localities concerned.

In 1822 a Board of Education for Upper Canada was established under the presidency of Ven. Archdeacon Strachan, then residing in York (Toronto). It had under its supervision the district grammar schools, and had also the management of the University and grammar school lands which had been granted for these purposes by His Majesty George III. in 1798. In 1824 a small grant was made to aid in the introduction of common and Sunday-school libraries into the less sparsely settled portions of the country. It was not, however, until 1835 that any systematic or vigorous effort was made by the public men of the time to establish a system of education.

In 1836 a Commission was appointed, consisting of Dr. Thomas Duncombe, M.P.P., Dr. Thomas D. Morrison and Dr. Bruce, to obtain evidence and to prepare a report on a system of education for the Province. An elaborate report on the subject was prepared by Dr. Dunscombe, and also on the state of education in the various parts of the United States of America which he had visited. He also prepared a comprehensive draft of a Bill to promote public elementary education, which was printed with the report. It was introduced into the House of Assembly and passed, but failed to pass the Legislative Council. The political crisis which so quickly followed and culminated in the outbreak, or rebellion, of 1837–8, overwhelmed in confusion all legislation, and prevented further attention being given to the subject for the time.

Immediately after the union of the two Canadas, that is, in 1841, a Bill was introduced by Solicitor-General Day (subsequently Hon. Mr. Justice Day) into the united Parliament and passed, establishing common schools in each of the two Provinces, and authorizing the establishment of "Roman Catholic Separate Schools" in Upper Canada (in cases where the teacher of the public school was a Protestant and *vice versa*); and "Dissentient Schools" in Lower Canada (in cases where the teacher of the public school was a Roman Catholic and *vice versa*).

In 1842 it was considered desirable to supersede this Act by one more applicable to the circumstances and wants of each Province. A School Bill for each Province was accordingly passed by the Legislature. The "Separate" and "Dissentient" school provisions were, however, retained in each case.

In 1844 a further impetus was given to public education in Upper Canada by the appointment to the office of Chief Superintendent of Education, of Rev. Egerton Ryerson, D.D., who speedily set himself to reconstruct, upon a broader and more comprehensive basis, the entire system of public elementary schools. As a preliminary step he devoted a year to the examination and comparison of the systems of education in Europe and America, and embodied the results in a "Report on a System of Public Elementary Instruction in Upper Canada." This valuable report, presented to the House of Assembly in 1846, sketches in an able manner the system of education which Dr. Ryerson subsequently so successfully established in the Province.

The system may be said to be a combination of the best elements of the systems of several countries. Thus the Province is, in a great degree, indebted to New York for the machinery of our schools; to Massachusetts for the principle of local taxation upon which the schools are supported; to Ireland (originally) for the series of textbooks; and to Germany for the system of Normal School training. All are, however, so modified and blended together to suit the wants and circumstances of the country, that they are no longer foreign, but are incorporated as part and parcel of our system of Public Instruction.

# THE EDUCATIONAL SYSTEM OF ONTARIO.

The School system of Ontario will now be considered somewhat in detail. Education is one of the subjects within the exclusive jurisdiction of the Provinces which compose the Confederation of Canada.

The administration of the Educational System of Ontario is provided for by statute (48 Vic., ch. 48), as follows:—

"1. There shall be a Department of Education, which shall consist of the Executive Council, or a Committee thereof appointed by the Lieutenant-Governor; and one of the said Executive Council, to be nominated by the Lieutenant-Governor, shall hold the office of 'Minister of Education.' (R. S. O. c. 203, s. 1.)

"2. The office of Minister of Education may be held by a member of the Executive Council holding no other office; and notwithstanding any salary attached thereto, he shall be capable of being elected, and sitting and voting as a member of the Legislative Assembly; or such office may be held in connection with any other office held by a member of the Executive Council; and any of the powers and duties of the said office may be assigned for a limited period, or otherwise, to any other of the members of the Executive Council holding any other Departmental office, by name or otherwise. (R. S. O. c. 203, s. 2.)"

The Educational Institutions in Ontario are as follows:—

I. ELEMENTARY SCHOOLS.
  1. Kindergartens.
  2. Public Schools, including Roman Catholic Separate Schools.

II. THE TRAINING OF TEACHERS.
  1. County Model Schools.
  2. Provincial Normal and Model Schools.
  3. High School Training Institutes.
  4. County Teachers' Institutes.
  5. Teachers' Reading Course.
  6. Ontario Teachers' Association.

III. CLASSICAL SCHOOLS.
  1. County High Schools.
  2. Collegiate Institutes.
  3. Upper Canada College.

IV. THE UNIVERSITY.
  1. University College.
  2. The University of Toronto.

V. TECHNICAL SCHOOLS.
  1. School of Practical Science.
  2. The Ontario School of Art.
  3. The School of Agriculture.

VI. SCHOOLS FOR SPECIAL CLASSES.
  1. Institution for the Deaf and Dumb.
  2. Institution for the Blind.

## VII. INSTITUTIONS PARTLY AIDED BY GOVERNMENT.

1. The Canadian Institute.
2. Institute Canadien.
3. Mechanics' Institutes.
4. Ontario Society of Artists.
5. Local Art Schools.
6. Literary and Scientific Society, Ottawa.
7. Hamilton Association.
8. The Entomological Society of Ontario.

## VIII. UNIVERSITIES, COLLEGES, AND SCHOOL NOT UNDER PROVINCIAL CONTROL.

1. Universities :
    - Victoria, at Cobourg.
    - Queen's, at Kingston.
    - Trinity College, at Toronto.
    - Ottawa College.
    - Western, at London.
2. Theological Colleges :
    - Knox, at Toronto (Presbyterian).
    - Huron, at London (Church of England).
    - Wycliffe, at Toronto “
    - McMaster Hall, at Toronto (Baptist).
    - St. Michael's, at Toronto (Roman Catholic).
    - Assumption, at Sandwich “
3. Classical and Literary Colleges, etc. :
    - Albert College, at Belleville.
    - Woodstock College.
    - Trinity College School, at Port Hope.
    - St. Michael's (in part).
4. Ladies' Colleges :
    - Alexandra (department), at Belleville.
    - Alma, at St. Thomas.
    - Bishop Strachan School, at Toronto.
    - Ladies' College, at Brantford.
    - Hellmuth College, at London.
    - Wesleyan Ladies' College, at Hamilton.
    - Ontario “ “ Whitby.
    - The “ “ Ottawa.
    - Demill “ “ Oshawa.
    - Woodstock (department).
    - Loretto Abbey, Toronto.
    - “ Convent, at Hamilton, Lindsay, and Niagara Falls.
    - St. Joseph's Academy, Toronto.
5. Medical Schools, etc. :
    - The College of Physicians and Surgeons of Ontario.
    - Toronto School of Medicine.
    - Trinity Medical School.
    - Royal College of Physicians and Surgeons.
    - College of Pharmacy.
    - School of Dentistry of the Royal College of Dental Surgeons.
    - Women's Medical Colleges, Kingston and Toronto.
    - Ontario Veterinary College.
6. Business Colleges :
    - At Belleville, 1; Brockville, 1; Chatham, 1; Guelph, 1; Hamilton, 2; Kingston, 1; London, 1; Peterboro', 1; Toronto, 2; Owen Sound, 1.

## IX. MISCELLANEOUS.

# PRELIMINARY INFORMATION.

Before entering into details respecting the Elementary Schools under the direction of the Department of Education, a brief sketch is here given of the municipal system of Ontario, so far as it affects these schools; and also some particulars as to school officers, the examination and granting of certificates to teachers, and religious instruction in the schools, etc. This information is given under the following heads:—

1. THE MUNICIPAL SYSTEM AS APPLIED TO THE SCHOOLS.
2. PUBLIC SCHOOL TRUSTEES AND THEIR DUTIES.
3. PUBLIC SCHOOL INSPECTORS AND THEIR DUTIES.
4. COUNTY BOARDS OF EXAMINERS AND THEIR DUTIES.
5. THE CENTRAL COMMITTEE AND ITS FUNCTIONS.
6. TEACHERS' EXAMINATIONS FOR CERTIFICATES.
7. CLASSES OF CERTIFICATES TO TEACHERS.
8. RELIGIOUS INSTRUCTION IN THE SCHOOLS.
9. MISCELLANEOUS.

## I. Municipalities in their Relation to Schools.

The Province of Ontario possesses a system of municipal, or local, self-government which is uniform throughout the Province. While symmetrical in its arrangement, and thoroughly practical, it rests upon the free action of the ratepayers in each municipality. The organization comprises the (1) minor municipal corporations, consisting of townships, being rural districts of an area of eight or ten square miles, with a population of from three to six thousand; (2) villages with a population of over seven hundred and fifty; and (3) towns with a population of over two thousand. Such of these as are comprised within a larger district, termed a county, constitute (4) the county municipality, which is under the government of a council composed of the heads of the different minor municipalities in such counties as have already been constituted in the Province. (5) Cities are established from the growth of towns, when their population exceeds ten thousand, and their municipal jurisdiction is akin to that of counties and towns combined.

The functions of each municipality are commensurate with their respective localities. This municipal organization has been readily adapted to the requirements of a popular or national system of education.

The Rev. Dr. Ryerson, who, in February of the year 1876, retired from the office of Chief Superintendent of Education, after thirty-three years of able service and devotion in founding and developing the Ontario system of Public Instruction, thus describes the facilities afforded to educational progress by this municipal system, in an address delivered in the year 1851:

> "It is in Upper Canada (now Ontario) alone that we have a complete and uniform system of municipal organization, from the smallest incorporated village to the largest city, and from the feeblest school section and remotest township to the largest county or union of counties—the one rising above the other, but not superseding it—the one merging into the other for purposes of wider expansion and more extensive combination. By their constitution, the municipal and school corporations are reflections of the sentiments and feelings of the people within their respective circles of jurisdiction, and their powers are adequate to meet all the economic exigencies of such municipality, whether of schools or roads, of the diffusion of knowledge, or the development of wealth."

## 2. School Trustees and their Duties.

In each minor municipality, such as a township, local School Corporations for the township, or for a section thereof, at the option of the ratepayers, are established, and these are managed by trustees elected by the ratepayers, who are liable for the support of the public schools in their respective localities and are practically the owners of them. The trustees appoint the teachers, who must possess the qualifications required by the Department. They arrange and pay the salary; purchase the school site (which may be acquired compulsorily); build the school-house, and estimate (within certain restrictions) for collection by the Township Council the rates for all funds which, in their judgment, are required for public school purposes. They are under obligation to provide adequate school accommodation, as defined by the Regulations of the Education Department, for two-thirds of the actual resident children of school age within the school division; to employ the required number of qualified teachers; to permit the children of all residents, between the ages of five and twenty-one, to attend school *free of charge;* they are bound to keep the schools open the whole year, except during vacations, and to send to the Inspectors and the Department the returns and reports required by the Law and Regulations. They are also empowered to dismiss refractory pupils; and, where practicable, to remove them to an Industrial School. They are required to visit from time to time the schools under their charge, to see that they are conducted according to law and that no unauthorized text-book is used.

Similar powers and obligations reside with the School Boards in cities, towns and villages. These Boards can raise the sums required for school purposes only by requisition, according to their own estimate, upon the Council of the Municipality, which is bound (under certain conditions) to levy, by rate, the amount required by the trustees. The Council of the County Municipality is entrusted with additional specific duties in respect of the townships, towns, and villages within the county, the most important being to levy by rate an amount equal to the Legislative grant for education, both amounts being solely devoted to the payment of teachers' salaries. The County Council also appoints one or more Inspectors for each county, who must possess the qualifications required by the law and General Regulations of the Department; pays one-half of their salaries and reasonable travelling expenses, the other half being paid out of Provincial funds; and appoints two members of a County Board of Examiners for the professional examination of third-class (or lowest grade) teachers.

### 3. Inspectors and their Duties.

The County, City, and Town Councils, in appointing Inspectors, are limited to such teachers as possess certificates of eligibility, granted by the Department, and to two classes only, viz., (1) holders of First-class Provincial Certificates, Grade A; and (2) Graduates in Arts, with first-class honors, of any of the Universities in the Province, who furnish evidence of having taught successfully for five years, of which three at least must have been spent in a public school.

*County Inspectors.*—The County Inspector's duties are to inspect every school at least once in each term; to spend half a day in each school; to satisfy himself as to the progress made by the pupils from time to time; to examine into the methods of instruction pursued by the teacher; to teach a few model lessons himself; to ascertain the nature of the discipline exercised by the teacher; to examine the registers, also the apparatus, seats and desks, and all the internal and external equipments of the school-house; to report to the trustees in regard to such matters as require their attention; to give such advice as may be deemed necessary; to see that no unauthorized text-books are used in the school; to withhold the school grant in certain cases; to apportion the school grants according to the average school attendance of pupils; to decide complaints on certain conditions; to grant, on examination, temporary certificates; to suspend a certificate if necessary; to visit the County Model School at least twice in each term; and to report on the state of the schools to the Department, and generally to see that the Laws and Regulations are observed; make the apportionment of the Legislative and County Grants equivalent to each school; to act as Chairman of the Examining Board of his district; investigate, confirm, or set aside the rural school elections; to call meetings of ratepayers; decide disputes; to suspend teachers' certificates, for cause.

*City and Town Inspectors.*—The Inspector of every city or town shall, in addition, perform such other duties as may be imposed upon him by the local Board of School Trustees.

### 4. County Boards of Examiners and their Duties.

Each County Board of Examiners consists of the Examiners appointed by the County Council, and the Inspector or Inspectors of the county and the Inspectors of any city or town within the limits of the county, and two other Examiners. They must possess the qualifications prescribed by the Regulations, viz., they must have had three years' experience as teachers in a public or high school and hold a First-class Provincial Certificate, or a Degree in Arts from any chartered university in the Province of Ontario, or a certificate as head master of a high school. Their functions are to examine candidates within their localities for Third-class Professional Certificates, at the close of each session of the County Model or Training Schools; to investigate all appeals against the action of any Inspector in their jurisdiction who suspends a teacher's certificate, and to exercise a general supervision over the County Model School.

## 5. The Central Committee and its Functions.

The Central Committee of Examiners is appointed by the Department, and consists of High, Public and Separate School Inspectors, two each, the Inspector of County Model Schools, the Director of Teachers' Institutes and a Chairman. Their chief functions are to prepare papers for the Professional and Non-Professional Examinations for each class of Public School Teachers' Certificates, and to peruse and value the answers of candidates for First-class Certificates. Sub-Examiners are appointed to aid in reading and reporting upon the answers for the Third and Second-class Non-Professional Examinations.

*Instructions to the Examiners.*—The Examiners are guided by the following instructions from the Department:—The questions in each subject are to be framed by the Examiners, not with reference to any high standard for competitive examination, but solely to show whether the pupil is qualified or not for the position, having regard to his proficiency or deficiency in answering questions framed for this purpose in the prescribed subjects. All Examiners should, therefore, be careful, when judging the answers, not to do so by such a standard as should govern in competitive examinations intended to test the respective merits of the different candidates for some special honor, but as a means of determining whether a fair average knowledge is possessed by the candidate.

## 6. Teachers' Examinations for Certificates.

There are two examinations for granting certificates: one held at the High Schools, for testing the literary attainments of the candidates, to be known as the Non-Professional Examination; the other, at a County Model School for Third-class Teachers; at a Provincial Normal School for Second-class Teachers; and at a Training Institute for First-class Teachers, to be known as the Professional Examination for each class respectively.

*Third Class.*—Candidates for a Third-class Non-Professional Teachers' Certificate will be examined in the following subjects as prescribed for Form I. of the High School Course of Study, viz.:—Nos. 1–10, 19, 20 and 21, with an option between 15, or 17, or 18, and group 12 and 14:—

1. READING (ORAL) AND PRINCIPLES OF.—A general knowledge of the principles of elocution; reading with proper expression, emphasis, inflection, and force.

2. Orthography and Orthoepy.—The pronunciation, the syllabication, and the spelling from dictation, of passages from any English author, and the spelling of all non-technical English words.

3. English Grammar.—Etymology and Syntax ; exercises.

4. Composition.—The framing of sentences and paragraphs ; familiar and business letters ; paraphrasing ; synonyms ; correction of errors ; themes based on the prose literature prescribed for this Form.

5. Literature.—The critical reading of such works as may be prescribed by the Education Department from time to time.

6. History.—The leading events of Canadian and English History.

7. Geography.—Political, physical and mathematical Geography. Map Geography generally ; Canada and the British Empire more particularly.

8. Arithmetic and Mensuration.—Arithmetic in theory and practice ; areas of rectilinear figures, and volumes of right parallelopipeds and prisms ; the circle, sphere, cylinder, and cone ; Mental Arithmetic.

9. Algebra.—Elementary rules : factoring ; greatest common measure ; least common multiple ; fractions ; simple equations of one, two, and three unknown quantities ; simple problems.

10. Euclid.—Book I., with easy problems.

19. Writing.—Neatness, legibility.

20. Book-keeping.—Single and double entry ; commercial forms ; general business transactions.

21. Drawing.—Freehand ; practical Geometry ; perspective ; industrial designs.

Options.—The options between Nos. 15, or 17, or 18, and group 12 and 14, are as follows, viz. :—

15. Latin.—The Elementary Latin Book, grammar, composition, and the texts prescribed from time to time by the Education Department.

17. French.—The Elementary French Book, grammar, composition, and the texts prescribed from time to time by the Education Department.

18. German.—The Elementary German Book, grammar, composition, and the texts prescribed from time to time by the Education Department.

12. Physics.—The elements of Physics, as treated in Huxley's Introductory Science Primer and Balfour Stewart's Science Primer.

14. Botany.—The elements of structural Botany. Outlines of classification ; examination and classification of common plants belonging to the following natural orders :—Ranunculaceæ, Cruciferæ, Mulvaceæ, Leguminosæ, Rosaceæ, Sapindaceæ, Umbelliferæ, Compositæ, Labiatæ, Coniferæ, Araceæ, Liliaceæ, Triliaceæ, Iradaceæ, Gramineæ ; the characters and general properties of these orders.

*Second Class.*—Candidates for a Second-class Non-Professional Teachers' Certificate are examined in the following subjects as prescribed for Form II. of the High School Course of Study, excepting Ancient History and Geography, viz. :—Nos. 1–10, 13, 21, with an option between 15, or 17, or 18, group 12 and 14, and group 19, 20, and 23. Candidates who do not take the commercial option for Second-class, shall pass the Third-class Non-Professional Examination in Nos. 19 and 20.

1. Reading.—Course for Form I. continued.

2. Orthography and Orthoepy.—Course for Form I. continued.

3. English Grammar.—Course for Form I. continued. (As prescribed for the Pass Matriculation Examination of the University of Toronto.)

4. Composition.—Course for Form I. continued.

5. LITERATURE.—The critical study of the texts prescribed from time to time for the Pass Matriculation Examination of the University of Toronto.

6. ENGLISH HISTORY (including Colonial History).—From William III. to George III. inclusive. Roman history from the commencement of the Second Punic War to the death of Augustus. Greek history from the Persian to the Peloponnesian Wars, both inclusive (University Pass).

7. GEOGRAPHY.—Modern: North America and Europe. Ancient: Greece, Italy and Asia Minor.

8. ARITHMETIC.—Course for Form I. continued (University Pass).

9. ALGEBRA.—To the end of Quadratics (University Pass).

10. GEOMETRY.—Euclid, Books I., II., III.; easy deductions (University Pass).

13. CHEMISTRY.—Reynolds' Experimental Chemistry (chaps. I. to XVI. inclusive).

21. DRAWING.—Course for Form I. continued.

OPTIONS.—The options between Nos. 15, or 17, or 18, groups 12 and 14, and groups 19, 20 and 23, are as follows, viz.:—

15. LATIN.—Examination subjects as prescribed, from time to time, for Pass Matriculation into the University of Toronto.

17. FRENCH.—Examination subjects as prescribed, from time to time, for Pass Matriculation into the University of Toronto.

18. GERMAN.—Examination subjects as prescribed, from time to time, for Pass Matriculation into the University of Toronto.

12. PHYSICS.—Definitions of velocity, acceleration, mass, momentum, force, moment, couple, energy, work, centre of inertia, statement of Newton's Laws of Motion, composition and resolution of forces, condition for equilibrium of forces in one plane, definition of a fluid, fluid pressure at a point, transmission of fluid pressure, resultant fluid pressure, specific gravity, Boyle's Law, the barometer, air-pump, water-pump, siphon (University Pass).

14. BOTANY.—Course in Form I. continued.

19. WRITING.—Course for Form I. continued.

20. BOOK-KEEPING AND COMMERCIAL TRANSACTIONS.—Course for Form I. continued.

23. Precis-writing and Indexing.

*Local Examinations.*—The Non-Professional Examinations for Teachers' Certificates of the Second and Third Classes, and the "Entrance to High School" Examinations, may, with the sanction of the Minister, be held at other centres than the High Schools.

*First Class.*—Candidates for a First-class Non-Professional Certificate, Grade C, are examined in the following subjects, as prescribed for Form III. of the High School Course, viz.:—Nos. 3, 4, 5, 6, 7, 9, 10, 11, 13 and 14 of Form III., and also 12 of Form II. At the examination in Botany, candidates are expected to describe and classify a submitted specimen of a Canadian flowering plant. Only such candidates as pass the Second-class Non-Professional Examination are eligible to write for First "C," but both examinations may be taken the same year.

3. ENGLISH GRAMMAR.—Course in Form II. continued.

4. COMPOSITION.—Course in Form II. continued.

5. LITERATURE.—The critical study of the texts prescribed, from time to time, for Honor Matriculation into the University, Toronto.

6. History.—English history under the Houses of Tudor and Stuart. (Honor Matriculation, University.)

7. Geography.—The British Empire, including the Colonies. (Honor Matriculation, University.)

9. Algebra.—To the end of Binomial Theorem. (Honor Matriculation, University.)

10. Geometry.—Euclid, Books I. to IV. inclusive, Book VI., and definition of Book V. (Honor Matriculation, University.)

11. Trigonometry.—(Honor Matriculation, University). The solution of Triangles.

13. Chemistry.—Reynolds' Experimental Chemistry, chaps. I. to XXVI. inclusive. (The University Matriculation Examination.)

14. Botany.—The structure and classification of Canadian flowering plants. (The University Matriculation Examination.)

Note.—For No. 12 of Form II. see preceding page.

Non-Professional Examinations for First-class Certificates, Grade A or B, are limited as follows:—

## DEPARTMENT OF ENGLISH.

Composition.—History and Etymology of the English Language, Rhetorical Forms, Prosody. *Books of Reference*—Earle's Philology of the English Tongue, Abbot and Seeley's English for English People, Bain's Composition and Rhetoric, or Hill's Rhetoric, Marsh's English Language and Literature, Lectures VI. to XI. inclusive.

Literature:

1. History of English Literature, from Chaucer to the end of the reign of James I. *Books of Reference*—Craik's History of the English Literature and Language, or Arnold's Literature, English Edition; Marsh's English Language and Literature, Lectures VI. to XI. inclusive.

2. Specified works of standard authors, as prescribed from time to time by the Department.

History:

*Greece.*—The Persian to the Peloponnesian War inclusive, Cox's History of Greece (unabridged).

*Rome.*—From the beginning of the Second Punic War to the death of Julius Cæsar, Mommsen's History of Rome.

*England.*—The Tudor and Stuart Periods, as presented in Green's Short History of the English People, Macaulay's History of England (or Franck Bright's History of England, Second Volume), and Hallam's Constitutional History.

*Canada.*—Parkman's Old Regime in Canada and Wolfe and Montcalm.

Geography.—So much Ancient Geography as is necessary for the proper understanding of the portions of the Histories of Greece and Rome prescribed.

## DEPARTMENT OF MATHEMATICS.

Algebra.—Symmetry, Binomial Theorem, Multinomial Theorem, Exponential and Logarithmic Series, Interest and Annuities, Indeterminate Coefficients, Partial Fractions, Series (Convergency and Divergency, Reversion, Summation), Inequalities, Determinants as far as in Gross, Reduction and Resolution of Equations of first four Degrees and of Binomial Equations, Relations between Roots and Coefficients of Equations, Indeterminate Equations, Problems.

Analytical Plane Geometry.—The Point (including Transformation of Co-ordinates), the Right Line, the Circle, the Parabola, the Ellipse, the Hyperbola, the General Equation of the Second Degree, Abridged Notation.

TRIGONOMETRY.—Trigonometrical Equations, Solution of Triangles, Measurement of Heights and Distances; Inscribed, Circumscribed and Escribed Circles of a Triangle; Quadrilaterals, Description of Vernier and Theodolite, Trigonometrical and Logarithmic Tables, Demoivre's Theorem.

STATICS.—Equilibrium of Forces acting in one plane; Parallelogram of Forces, Parallel Forces, Moments, Couples, Centre of Gravity, Virtual Work, Machines, Friction, Experimental Verifications.

DYNAMICS.—Measurement of Velocities and of Acceleration, Laws of Motion, Energy, Momentum, Uniform and Uniformly Accelerated Motion, Falling Bodies, Moments of Inertia, Uniform Circular Motion, Projectiles in Vacuo, Collisions, Simple Pendulum, Experimental Verifications.

ELEMENTARY GEOMETRICAL OPTICS.—Reflection and Refraction of Light at Plane and Spherical Surfaces, including Prisms and Lenses (aberration not considered); the Eye; Construction and Use of the more simple Instruments.

Candidates for a Departmental Certificate, Grade A or B, taking the Departmental Examinations, are not eligible to write for this grade until they have first passed the Non-Professional Examination required for Grade C, but nothing herein contained shall prevent a candidate from writing at both examinations the same year. A candidate for Grade A or B is allowed an option between English and Mathematics.

## 7. Teachers' Certificates.

*Classes of Certificates.*—The conditions under which Public School Teachers' Certificates may be granted are prescribed by the Department. The certificates issued are—First-class, Grades A, B and C; Second-class and Third-class. First and Second-class Certificates are valid throughout the Province, and are held during good behaviour, while the Third-class are limited to a period of three years. The holder, however, may, on passing the Departmental Examination, obtain a renewal of the same for three years, subject to attendance at a County Model School. There can be no renewal without re-examination. In an emergency the Minister of Education has power to extend the duration of a certificate.

*Third Class—Conditions.*—The conditions upon which County Boards of Examiners can grant Third-class Certificates are: that (1) the candidates must furnish satisfactory proof of good moral character; (2) must be of the age of eighteen years, if males, and seventeen years, if females; (3) must have passed the prescribed non-professional examinations; and (4) must subsequently have attended for one term at the County Model School, and have obtained from its Principal, and the County Board of Examiners a certificate of qualification, after having passed the professional examination.

*Second Class.*—All candidates for Second-class Certificates are obliged to attend one of the Provincial Normal Schools, so as to prepare for the professional examination.

These Certificates are granted upon certain conditions only: (1) that the candidate must have passed the non-professional examination in literature and science; (2) must have taught successfully for at least one year in a Public School in the Province; and (3) must have attended, for one session, a Provincial Normal School, and have obtained from the Principal of such school and from the Examiners appointed by the Minister of Education a certificate of his fitness to teach on a Second-class Certificate. In addition to the examination above referred to, the candidates are examined in the following subjects, which constitute the professional examination for that class: Principles and Theory of Education; School Organization; Discipline and Government; English Literature and Language; Mental Arithmetic; Reading and Elocution; Practical Chemistry; Hygiene; Physics; Practical Botany; Zoology; Music and Drawing; Drill (males only) and Calisthenics; Methods of Teaching and Practical Teaching in the Model School.

*First Class.*—First-class Certificates are granted only upon the following conditions: that the candidate (1) must be the holder of a First-class Non-Professional Certificate; (2) must have passed the professional examination for a Second-class Certificate; and (3) must have attended a Training Institute for one session, and passed the prescribed examination thereat.

Should any teacher with requisites 1 and 2 have taught for two years in a Public or a High School, he need not attend the Institute, but must pass the examination.

## 8. Religious Instruction in the Schools of Ontario.

1. Every Public and High School shall be opened with the Lord's Prayer, and closed with the reading of the Scriptures and the Lord's Prayer, or the prayer sanctioned by the Department of Education.

2. The portions of Scripture used shall be taken from selections authorized for that purpose by the Department of Education, and shall be read without comment or explanation.

3. Where a teacher claims to have conscientious scruples against opening and closing the school as herein provided, he shall notify the Trustees to that effect in writing.

4. No pupil shall be required to take part in the exercises above referred to against the wish of his parent or guardian, expressed in writing to the master of the school.

5. When required by the Trustees, the Ten Commandments shall be repeated at least once a week.

6. The Trustees shall place a copy of the authorized Readings in each department of the Public and High Schools under their jurisdiction, within one year from the date hereof.

7. The clergy of any denomination, or their authorized representatives, shall have the right to give religious instruction to the pupils of their own Church in each school-house at least once a week, after the hour of closing of the school in the afternoon; and if the clergy of more than one denomination apply to give religious instruction in the same school-house, the School Board or Trustees shall decide on what day of the week the school-house shall be at

the disposal of the clergyman of each denomination, at the time above stated. But it shall be lawful for the School Board or Trustees and clergyman of any denomination to agree upon any hour of the day at which a clergyman, or his authorized representative, may give religious instruction to the pupils of his own Church, provided it be not during the regular hours of the school.*

### 9. Miscellaneous.

In addition to the foregoing, provision has been made for granting aid to public schools in new and poor townships; for the course of study and inspection of Indian schools, and for administering the Superannuated Inspectors' and Teachers' Fund. Regulations have also been made in regard to school libraries, and a series of text-books for high and public schools have been prescribed.

## I. ELEMENTARY SCHOOLS.

### I. Kindergartens.

In the year 1882, the Hon. Adam Crooks, Minister of Education, at the request of the Public School Board of Education of the City of Toronto, and as the result of a visit made by a delegation from that Board to the City of St. Louis (Missouri, U. S.), invited two prominent Kindergarteners—Miss Blow and Mrs. Hubbard—to visit the City of Toronto and deliver a course of lectures, with illustrations of Kindergarten Gymnastics and Work, before the students of the Normal School and the city teachers. The impression made was so favorable that a lady teacher, who had for some time been conducting a Kindergarten in the city, was selected by the Board to proceed to St. Louis and perfect herself in the work of a Kindergarten. On her return she was appointed to the double position of Lecturer in the Normal School and Instructor to the city teachers in the Kindergarten work. The result of her labors is that the Kindergarten has been introduced into Toronto, Hamilton, and Berlin in connection with the Public School system. The same teacher now conducts a Training School for Kindergarteners in connection with the Public Schools of Toronto, and *all* primary teachers receive the training. Besides the Kindergartens attached to certain of the Public Schools, the Board of Education conduct a Charity Kindergarten for the children of poor women, who have to go out to daily service.

Each of the Provincial Normal and Model Schools at Toronto and Ottawa has a Kindergartener on the staff of teachers, who has supervision of the Kindergarten attached to the Model Schools, and also instructs the teachers-in-training in that branch of their profession.

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* The Regulations prescribing the "Hours of Daily Teaching" provide that they shall not exceed six hours in duration, but "a less number of hours of daily teaching may be determined upon in any Public School, at the option of the Trustees." Arrangement may, therefore, be made by the Trustees for closing the ordinary school work earlier than the usual hour, on certain days, so that time may be given for religious instruction.

## 2. Public Schools—Explanatory Statement.

Each city, town, township and village has, as has been observed, its own municipal council; and each city, town, village and rural school section has its own independent board of school trustees, which is by law invested with extensive corporate powers. One is supreme in civic affairs, while the other is no less so in all matters pertaining to the schools.

Each township is divided by its municipal council into school sections of from two to four square miles each. Three trustees are elected by the ratepayers as a school corporation for each section. These trustees hold office for three years—one going out of office annually, when his successor is elected.

*Grants.*—Two hundred and forty thousand dollars ($240,000) are annually granted by the Legislature, and apportioned by the Minister of Education amongst the municipalities. They are required to raise, by rate, a sum at least equal to that apportioned to them. These two sums constitute the primary school fund of the municipality. On the requisition of the board of trustees, the municipal corporation imposes the additional rates which are necessary for the support of the schools.

A sum of about twenty thousand dollars ($20,000) is granted annually in aid of schools in new and sparsely scattered townships. This money is apportioned by the Department, and is in addition to the share coming to these poor schools from school fund of the municipality and the local rates raised on the requisition of trustees.

*Separate Schools.*—The term "Separate Schools" applies to Protestant and colored persons as well as to Roman Catholics; but this exception to the general Public School system is confined chiefly to Roman Catholics who desire to establish Separate Schools in localities where their supporters are sufficiently numerous to support one. The principle of these schools is, that any Roman Catholic ratepayer may elect to support a Separate School, and upon giving the prescribed notice he is exempted from the Public School rates. These schools are governed by trustees who are elected by the supporters of such schools, and are a corporation with powers similar to those of other school trustees. The teachers are required to possess proper certificates of qualification, and the schools share in the Legislative Grant in proportion to the attendance, and they are also subject to inspection by the Education Department: two Inspectors having been appointed for that purpose. In case of any disagreement between the Separate or Public School Corporations and the municipal bodies, such dispute is subject to the arbitrament of the Minister of Education, with the right of appeal to the Lieutenant-Governor in Council.

Programme.—The Programme of Studies prescribed for Public Schools is as follows:—

| Subject. | 1st Class. | 2nd Class. | 3rd Class. | 4th Class |
|---|---|---|---|---|
| Reading and Literature— | Tablet Lesson and First Reader. | Second Reader. | Third Reader. | Fourth Reader. |
| Spelling, Orthography and Orthoepy— | Spelling from reading lessons, on slates and orally. | Spelling from reading lessons, on slates and orally. | Spelling with verbal distinctions, on copies and orally. | Systematic orthography and orthoëpy. |
| Writing— | Writing on slates and paper. | Writing on slates and paper. | Copy writing. Business forms. | Business forms and accounts. |
| Arithmetic— | Numeration and notation to 1,000; addition and subtraction; mental arithmetic. | Numeration and notation to 1,000,000; multiplication and division; mental arithmetic. | Greatest common measure and least common multiple. Elementary reduction. Compound rules. Mental arithmetic. | Vulgar and decimal fractions. Elementary percentage and interest. Mental arithmetic. |
| Drawing— | The drawing exercises in parts I. and II. First Reader. | Drawing-book No. 1, authorized series. | Drawing-books Nos. 2 and 3. | Drawing-books Nos. 4 and 5. |
| Geography— | Conversations concerning the earth. | Local geography and elementary definitions. Map of the world. | Definitions. Simple map geography, N. American and Ontario. Map drawing. | Geography of the Continents, Canada and Ontario. Map drawing. |
| Music— | Rote Singing. | Rote singing. Elements of Musical Notation. | Simple songs. Elementary ideas of written music. | Song singing. Sacred music. Musical notation. |
| Grammar and Composition— | Oral exercises in language. | Oral and written exercises in language. | Classes of words and their inflections. Simple descriptive writing. | Elements of formal Grammar and Composition. |
| History— | | | History, English and Canadian. | Leading features of English and Canadian History. |
| Object Lessons— | Form, size, color, weight, common objects (parts and qualities). | Subjects of Class I. continued. | Common objects (source, manufacture, uses, etc.) Animals, birds, plants. | |

Temperance, Hygiene, Drill (with Calisthenics for Girls), and Moral Culture.

## EXPLANATORY REMARKS ON THE PROGRAMME.

The programme of studies herein prescribed shall be followed by the teacher as far as the circumstances of his school permit. Any modifications deemed necessary should be made only with the concurrence of the Inspector and the Trustees. In French and German Schools the authorized Readers shall be used in addition to any text-books in either of the languages aforesaid.

[NOTE.—General directions then follow on the teaching of the several subjects mentioned in the foregoing programme. In regard to the Fifth Class the regulations say] :—

*Fifth Class.*—The programme for the Fifth Class embraces the following subjects:—Reading, Literature, Orthography and Orthoëpy, Writing, Arithmetic, Drawing, Geography, Grammar, Composition, History, Music, Bookkeeping, Algebra, Euclid, Physics, Botany, Hygiene, Drill, Calisthenics, Moral and Religious Instruction. The course of study under each head is the same as that prescribed for Third-class Teachers. Trustees are recommended not to form a Fifth Class in the Public School in any city, town, or incorporated village where a High School is situated.

## GENERAL DIRECTIONS AS TO TEACHING OTHER SUBJECTS.

HYGIENE.—This subject should be taught in the form of familiar lectures, and should include—temperance ; the nature and effects of alcohol upon the system ; the importance of cleanliness, and a strict observance of the laws of health ; dietetics ; how to preserve the eyesight, teeth, etc. ; the dangers of exposure to cold and damp ; how to play in order to promote physical culture ; etc. At least one hour a week should be devoted to this subject.

DRILL AND CALISTHENICS.—The different extension movements prescribed in any text-book on the subject should be frequently practised, not only during recess, but during school hours. Accuracy and promptness should characterize every movement. In addition, the boys should be formed into companies and taught the usual squad and company drill, and the girls should be exercised in calisthenics.

MORAL AND RELIGIOUS INSTRUCTION.—No course of moral instruction is prescribed. The teacher is expected, however, by his personal example, as well as by the exercise of his authority and by instruction, to imbue every pupil with respect for those moral obligations which underlie a well-formed character. Respect for those in authority and for the aged, courtesy, true manliness, reverence, truthfulness, honesty, etc., can best be inculcated as the occasion arises for referring to them. The religious exercises of the school should be conducted without haste, and with the utmost reverence and decorum.

REVIEWS AND RECITATIONS.—Every Friday forenoon should be devoted to a review of the week's work, and the afternoon to exercises tending to relieve the usual routine of the school-room, while promoting the mental and moral culture of the pupils. The teacher should encourage the pupils to prepare dialogues, readings, recitations and songs for the Friday afternoon school-sessions. He should also choose some topic for a familiar lecture, or read some literary selection, making such comments as are likely to promote a love of reading, and quicken the interest of the scholars in the work of the school. The girls should receive suitable instructions in plain sewing.

AGRICULTURE.—In rural schools the subject of agriculture should occupy a prominent place, such points being considered as—the nature of the soil ; how plants grow and what they feed upon ; how farms are beautified and cultivated ; the value of shade trees ; what trees to plant, and when to plant them ; the relation of agriculture to other pursuits ; the effect of climate on the pursuits of a people. Poetical selections on rural pursuits, talks on botany and natural history, should form part of the instruction of every Friday afternoon.

### PUBLIC SCHOOL STATISTICS FOR 1884.

With a view to understand the condition of the Public Schools of Ontario for the year 1884, the following statistics are inserted in this place :—

1. *Pupils.*—The number of pupils, according to age, attending the Public Schools, was as follows : Pupils under 5 years of age, 1,115 ; from 5 to 21, 465,374 ; over 21, 428 ; the number between the age of 7 and 13 reported as not attending school was 6,230. The average daily attendance, divided by the legal teaching days of the year, was 221,861, or 48 per cent.

2. *Classes.*—The number in the different classes was as follows :

| 1st Class. | 2nd Class. | 3rd Class. | 4th Class. | 5th Class. | 6th Class. |
|---|---|---|---|---|---|
| 167,722 | 106,017 | 112,873 | 70,713 | 8,698 | 894 |

Note.—The circumstances of Public Schools situate in the Cities and Towns, and those in rural districts, differ in this, that in the latter there are two classes of pupils : the elder, who chiefly attend during the winter months, and the younger, in the warmer seasons. The average attendance accordingly shows this contrast :

| | |
|---|---|
| Attendants in Cities | 60 per cent. |
| " " Towns | 56 " |
| " " Rural Districts | 44 " |

The number of Teachers was 7,085 ; 2,789 being Males, and 4,296 Females.

3. *Teachers' Qualifications.*—The following were the qualifications of the different Teachers in the year 1884 :—

| | |
|---|---|
| Provincial First-class | 235 |
| " Second-class | 2,237 |
| Old County Board First-class Certificates | 168 |
| " " Second-class " | 118 |
| " " Third-class " | 3,420 |
| Temporary Certificates | 623 |
| Other " | 284 |

4. *Salaries.*—The following table gives the average Salaries of the Teachers in Counties, Towns, and Cities respectively:—

| | Males. | Females. |
|---|---|---|
| Counties | $404 | $264 |
| Towns | 612 | 283 |
| Cities | 791 | 364 |

The R. C. Separate Schools are included in the preceding statement. The number of these schools is 207, and of pupils attending them 27,463.

5. *Historical Statistical Retrospect.*—With a view to give a bird's-eye view of the gratifying progress which has been made in the Public Schools of Ontario during the five last decades, the following table has been prepared:—

STATISTICS of the PUBLIC SCHOOLS and ROMAN CATHOLIC SEPARATE SCHOOLS of Ontario for the last forty years.

| | 1844. | 1854. | 1864. | 1874. | 1884. |
|---|---|---|---|---|---|
| Population of Ontario | 506,055<br>(1842) | 950,551<br>(1850) | 1,396,091<br>(1860) | 1,620,851<br>(1870) | 1,913,460<br>(1880) |
| Number of Schools | 2,610 | 3,244 | 4,225 | 4,758 | 5,316 |
| School Population between the ages of 5 and 16 | 183,539 | 277,922 | 424,565 | 511,603 | 471,287 |
| Number of Pupils attending School | 96,756 | 204,168 | 371,695 | 464,047 | 466,917 |
| Number of Public School Teachers | .... | 3,539 | 4,625 | 5,736 | 7,085 |
| Male | .... | 2,508 | 3,011 | 2,601 | 2,789 |
| Female | .... | 1,031 | 1,614 | 3,135 | 4,296 |
| Am't of Legislative Grant. | $80,000 | $90,690 | $177,053 | $267,772 | $267,084 |
| Am't of Municipal School Grant and Assessments. | $66,890 | $483,523 | $1,023,400 | $2,214,976 | $2,675,721 |
| Trustees' Rate Bills, and Other Receipts | $89,339 | $252,339 | $283,734 | $756,523 | $1,047,417 |
| T'l Income from all sources | $236,229 | $826,552 | $1,484,187 | $3,239,271 | $3,990,222 |
| Paid Teachers' Salaries | $206,856 | $578,868 | $996,956 | $1,647,750 | $2,296,027 |
| Paid for Sites, Buildings and Repairs | .... | $115,311 | $153,059 | $853,584 | $967,102 |
| Other Expenditures | .... | $88,312 | $135,303 | $363,998 | $17,733 |
| Total Expenditure | .... | $782,491 | $1,285,318 | $2,865,332 | $3,280,862 |
| No. of School-houses reported — Wood | .... | 2,802 | 3,351 | 3,195 | 2,954 |
| No. of School-houses reported — Stone or Brick | .... | 337 | 895 | 1,632 | 2,390 |

## II. THE TRAINING OF TEACHERS.

The following is a brief description of the means under the control of the Education Department of Ontario for preparing young men and women in the Province for the teaching profession. They are:—

1. The County Model Schools.
2. The Provincial Normal and Model Schools.
3. The Training Institutes.
4. Teachers' Institutes.
5. Teachers' Reading Course.
6. Ontario Teachers' Association.

## I. County Model Schools.

The establishment of this very valuable portion of the Educational System of the Province dates as far back as the year 1843. By referring to the first School Act for Upper Canada, passed in that year, we find that the 57th Section declares:—

> "That it shall and may be lawful for the Court of Wardens of any County in Upper Canada . . . to raise and levy by county rate a sum not exceeding £200 ($800), and to appropriate and expend the same for the maintenance of one or more "County Model Schools," within such County, and to constitute, by by-law or by-laws, to that effect, any Township, Town, or City School or Schools within the County, to be for any term not less than one year, such County Model School or Schools, etc."

The 66th Section of the same Act declares:—

> "That in every such Township, Town, or City Model School, gratuitous instruction shall be given to teachers of Common Schools." . . .

The School Act of 1846 provided for the establishment of District Model Schools in which "instruction shall be afforded to all teachers of Common Schools within the District." They were thus Normal Schools in miniature, for the persons under instruction were already teachers. The "Educational Reports" of those years contain reports from School Superintendents who speak highly of the system.

In 1850, when the whole machinery of the School System was revised and reorganized, the Act provided for the establishment and maintenance of Township Model Schools in place of County ones.

The chief reason why such schools did not prove a success at that early period of our educational history was the lack of "model teachers," as well as "model school-houses."

As the status and qualifications of the Superintendents, who were subsequently styled Inspectors, as organizers and practical judges of scholastic efficiency, improved, so did the schools. At last the time came when the Model School System could be once again put into operation, and so in the year 1877 the School Act directed, that at least one school in each County shall be set apart by the County Board of Examiners, as a County Model School for the training of candidates for Third-class Teachers' Certificates. The County Council is required to provide and levy for each such Model School within the County, an amount at least equal to that apportioned or paid by the Education Department out of the Annual Legislative Grant; but in no case must it be less than one hundred and fifty dollars.

*Conditions on which Model Schools are Established.*—1. The Principal must hold a First-class Provincial Certificate, and have at least three (3) years' experience as a Public School Teacher.

2. There must be at least three (3) assistants holding Second-class Certificates.

3. The equipment must be equal to that required for the Fourth Class of a Public School.

4. A separate room for Model School purposes must be provided.

5. An assistant must be employed to relieve the Principal of his Public School work at least half the day, while the Model School is in session.

### COURSE OF STUDY.

The course of study embraces the following:—

I. Principles of Education.—School organization, management, discipline, methods of instruction, and practice in teaching.

(1) Methods of Instruction.—The best methods of teaching the various subjects prescribed for the first four classes in the Public Schools, especial attention being given to the best methods of giving the *first lessons* in these subjects.

(2) Observation and Reporting.—I. (*a*) Observation of methods illustrated in the Principal's model lessons; (*b*) observation—under the Principal's supervision, when possible—of methods illustrated by the assistant Model School Teachers. II. Reporting to the Principal the results of their observations, especially as to the (*a*) object of the lessons observed; (*b*) steps by which this object was attained.

(3) Practice in Teaching.—After proper instruction and examples in Methods, each Teacher-in-training shall have practice in applying the methods exemplified (*a*) by using his fellow-students as a class; (*b*) by teaching a class of pupils—say ten or twelve—before the Principal or some other competent critic; (*c*) by teaching in the several divisions of the school. No Teacher-in-training shall be required to practise the actual teaching of any subject as in (*a*) till the best method of presenting it has been explained and actually exemplified. Practice in (*a*) precedes practice in (*b*), and practice in (*b*) precedes practice in (*c*).

II. Physiology and Hygiene.—(*a*) Laws of health, temperance, cleanliness, hours for study, rest, recreation, and sleep. (*b*) Heating and ventilation of the school-room. (*c*) Functions of the brain, eye, stomach, heart and lungs.

III. Music, Drawing and Calisthenics.

IV. School Law.—A knowledge of school law, so far as it relates to the duties of teachers and pupils.

V. Review of Non-Professional Work.—A review of the principal subjects in the Public School curriculum, such as Composition, Grammar, Arithmetic, and Literature.

Final Examination.—At the end of each Session there is an Examination in these subjects on papers prepared by the Department, as well as in Practical Teaching. This Examination, conducted by the County Board of Examiners, constitutes the Professional Examination for Third Class Teachers.

Syllabus of Lectures.—A practical and comprehensive Syllabus of Lectures for the Schools was drawn up by the present Minister of Education, Hon. G. W. Ross, in 1878, who was at that time Public School Inspector for the County of Middlesex. It still forms the basis of the instruction given in these institutions.

Inspection.—The County Model Schools are periodically inspected at least once during the Session, by the official appointed for that purpose by the Education Department.

*Statistics.*—There are at present fifty-two of these Schools. Their condition can be best understood from the following condensed statistics:—

| | |
|---|---|
| Number of Student Teachers on Roll | 1,305 |
| Males | 520 |
| Females | 785 |
| Increase over last year | 234 |
| Number who withdrew during the term | 21 |
| Number who passed Final Examination | 1,203 |
| Males | 467 |
| Females | 736 |
| Number that failed | 81 |
| Number of Lectures on Education | 1,467 |
| " " School Law | 509 |
| " " Hygiene | 936 |
| " Lessons taught by each Student | 1,559 |
| " Departments used | 340 |
| " Assistants with the required qualifications | 253 |

## 2. The Provincial Normal and Model Schools.

*Object.*—These Schools, situated at Toronto and Ottawa, are intended as Training and Practice Schools for Candidates for SECOND-CLASS CERTIFICATES.

*Establishment.*—The establishment of a Normal School for the Training of Teachers as a part of a Provincial System of Education, engaged attention in Upper Canada (now Ontario) in 1836. Nothing definite, however, was done until the year 1846, when, in compliance with the recommendation of the Rev. Dr. Ryerson, Chief Superintendent of Education, in his Report already referred to (page 6) the Legislature appropriated funds for furnishing suitable buildings, and an annual grant for the support of a Normal School, under the management of a Board of Education and the Chief Superintendent. As the seat of Government was at this time in Montreal, the Government House at Toronto was placed at the disposal of the educational authorities. Here the School was opened on November 1, 1847. The removal of the seat of Government to Toronto, in 1849, necessitated another change of premises, and the adoption of measures for the immediate erection of the necessary permanent buildings. The requisite money having been voted by the Legislature, the corner-stone was laid July 2, 1851, by His Excellency the Earl of Elgin and Kincardine, Governor-General; and in the month of November in the following year the Normal and Model Schools were opened in the buildings which now ornament St. James' Square, and which are described in one of the provincial papers of that date as being "elegant in architectural appearance, commodious in their accommodations, and healthy in their situation." In the year 1858 the Normal School was transferred to the present building and the old apartments applied to the purposes of an Educational Museum and a projected School of Art and Design, which is now the Ontario School of Art.

*Granting of Certificates.*—From the time that the Toronto Normal School was established until the year 1871, all the Normal School Certificates for Teachers in the Province were granted by the Chief Superintendent of Education, upon Examination by the Teaching Staff of the Institute. During that time 3,150 Teachers received Certificates.

Since the year 1871 several changes have been made in the character of the work done in the Normal Schools, and in the Examinations for Certificates. Under the present system the work is in a large degree professional. Only those candidates who have passed the non-professional, or literary, examination, at the different High Schools of the Province, are entitled to enter the Normal Schools.

*Sessions.*—There are two sessions in each year, and the average attendance at each School is 100 for each session.

*Course of Studies.*—I. Education: 1. History of Education; 2. Science of Education; 3. Principles and Practice of Teaching; 4. School Organization and School Management. II. English Language and Literature: 1. English Literature. Critical reading of a play of Shakespeare, or the work of some other standard author. 2. Practical English. III. Hygiene. IV. Chemistry. V. Physics: 1. Heat; 2. Light; 3. Electricity. VI. Botany. VII. Zoology. VIII. Drawing. IX. Vocal Music. X. Calisthenics. XI. Military Drill. XII. Method: How to teach the different subjects on the programme for Public Schools. XIII. Practice in Model Schools. EXAMINATION. At the close of each session one of the High School Inspectors, and associates named by the Department, conduct the PROFESSIONAL EXAMINATION, which is based on the Course of Studies given above, and on practical teaching in the Model Schools.

The Normal School at Ottawa was opened in 1875, and the Model School in the year 1880. Before the erection of a separate building for the Model School, one of the City Public Schools was used as a school of practice for the Normal School Students. The Course of Study is precisely the same in both Schools.

*The Model Schools.*—These are adjuncts to the Normal Schools and are used as Practice Schools for the Teachers-in-training. The Course of Study is in harmony with that of the Public Schools. After the Students in the Normal Schools have observed the methods employed in the Model Schools, and have, in the presence of the Masters, handled classes formed amongst themselves, they are detailed to perform similar work in the Model Schools under the immediate direction and criticism of the regular Teachers. From the Reports emanating from the Head Teachers of these schools, and from those of their assistants in the Normal Schools, the Principals of the Normal Schools frame their Report as to the candidate's qualifications to receive a permanent Certificate of the Second Class.

*Statistics.*—The following Statistics are for the year 1886 :—

| NAME OF SCHOOL. | WHEN ESTABLISHED. | NUMBER OF TEACHERS. | NUMBER OF STUDENTS. |  | NUMBER OF PUPILS. |  |
|---|---|---|---|---|---|---|
|  |  |  | Males. | Females. | Boys. | Girls. |
| Toronto Normal School.... | 1847 | 5 | 84 | 157 | .. | .. |
| Ottawa Normal School .... | 1875 | 6 | 68 | 99 | .. | .. |
| Toronto Model School .... | 1847 | 9 | .. | .. | 150 | 156 |
| Ottawa Model School...... | 1880 | 9 | .. | .. | 172 | 180 |

The total number of Students admitted to the Toronto Normal School since its establishment in 1847 was 9,667; of these 4,901 received Certificates. The number of Students admitted to the Ottawa Normal School since its establishment in 1875 was 1,364; of these 763 received Certificates.

## 3. Training Institutes.

These Institutes, intended for the training of Assistant Masters of High Schools, and of First-class Teachers for Public Schools, are attached to certain Collegiate Institutes, which have as Assistant Masters specialists in Modern Languages, Mathematics, Classics, and Science, and, in addition to these, teachers competent to give instruction in Music, Drawing, Drill, and Calisthenics.

*Sessions.*—In each year there is one session of fourteen weeks. The first seven are devoted to the work of each department, the other seven are spent in observation of methods, practice, and examination.

### COURSE OF STUDY AND TRAINING.

The Course of Study and Training followed in each Training Institute is as follows:—

(*a*) The History of Education.

(*b*) The Science of Education.

(*c*) The Principles and Practice of Teaching, with especial reference to High School Work.

(*d*) The Organization and Management of Schools, with especial reference to the different grades of High Schools.

(*e*) Systematic observation of the mode of conducting a High School.

(*f*) Practice in managing classes and in teaching the High School course under the supervision of the Principal and his staff.

(*g*) Special instruction by the Principal and the Department Masters.

(*h*) Hygiene.

(*i*) School Law in reference to the duties of Teachers and Pupils.

PRACTICAL TEACHING.—The method employed is, in its main features, similar to that used in the County Model Schools and in the Normal Schools. First the Principal discusses the organization, etc., of a High School; shows how benefit is to be derived from observation and the criticism of the Teachers. Then classes are taught by the Departmental Masters and notes taken by the Teachers-in-training. Lesson are then assigned by the Department Masters, notes of which have to be submitted to, and criticised by, the Master before the actual teaching is done. The Teachers-in-training have also to teach one another and to criticise one another's teaching in presence of the Master.

EXAMINATIONS.—During the session, the Teachers-in-training are subjected to such oral and written examinations on the course of study as the Principal may deem expedient. At the close of the session they undergo an examination in Practical Teaching by one of the High School Inspectors, and also a written examination on papers prepared by the Departmental Examiners on specific subjects. At the Examination in Practical Teaching each candidate is allowed to teach lessons which he has prepared for the occasion, and a scheme of which he hands to the examiner; but he shall also teach lessons the subjects of which shall be selected by the examiner, sufficient time, however, being allowed for preparation in this case also. The results of these examinations, together with the report of the Principal, based on the record in the Training Register, shall determine the final standing of each candidate.

WRITTEN EXAMINATION.—The written examination embraces the following subjects:—

(*a*) Mental and Moral Science in their relation to the work of teaching; Observation, and the training of the Senses; Association; Memory; Reasoning; Imagination; The Conduct of the Understanding; The Will, and how to train it; Habit and Character; Authority and Discipline; Rewards and Punishment.

(*b*) The History of Education.

(*c*) The practical application of the principles of Education:—School Organization and Management; Special Methods in the Departments of *English, Mathematics, Science, Classics, French and German.*

(*d*) Hygiene.

(*e*) School-law in reference to the duties of Teachers and Pupils.

No certificate is awarded to a candidate who fails to satisfy the examiners that he has made himself acquainted, both theoretically and practically, with the best methods of teaching at least the elements of all the subjects covered by the Non-Professional Certificate. The Professional Certificate of each passed candidate shows in detail those Departments or Subjects which he is most competent to teach. The Departmental Examiner has power to reject any candidate who may show himself deficient in scholarship.

### STATISTICS.

These Institutes are, at present, connected with two (2) of the Collegiate Institutes, viz., Kingston and Hamilton.

The Examination in December, 1885, which was the first held under the new regulations, resulted as follows:—

| | |
|---|---|
| ASSISTANT HIGH SCHOOL MASTERS ............ | 23 |
| FIRST CLASS PUBLIC SCHOOL TEACHERS ........ | 10 |

## 4. Teachers' Institutes.

The 65th Section of the School Act, 1850, authorized the holding of a "Teachers' Institute" in each county of Upper Canada. The first Institute under this provision of the law was held by the Masters of the Normal School—Mr. T. J. Robertson, M.A., the first Principal of the School, and Mr. H. Y. Hind, Second Master—in June, July, and August, 1850. Afterwards Institutes were held by local parties in connection with Teachers' Associations. In 1872, these Institutes were put upon a more efficient footing. A strong desire having been expressed by many teachers of the Province, Dr. J. H. Sangster, the late Principal of the Normal School, gratuitously devoted a large portion of his time during the summer and autumn of 1873, to the work, and held Teachers' Institutes in seventeen counties. The teachers themselves defrayed the expenses, and the attendance averaged 142 teachers.

*Formation and Object.*—A Teachers' Institute is formed in each County or Inspectoral Division, having for its object the reading of papers and the discussing of matters that have a practical bearing on the daily working of the school-room.

*Money Grant.*—The Minister of Education apportions to each Institute the sum of twenty-five dollars ($25), and the Municipal Council pays the same amount.

*Officers.*—These are a President, Vice-President, and Secretary-Treasurer. These, together with a Committee of Management composed of five members, are elected annually.

*Annual Meeting.*—Each Institute meets at least once a year for the election of officers, and the discussion of such matters as may be submitted by the Committee.

*Time and Place of Meeting.*—The Education Department, after consultation with the Inspector, arranges the time and the place of meeting. A copy of the programme of proceedings is sent to every Teacher in the Inspectorate at least one month before the time of meeting.

*Attendance.*—Every Teacher, unless prevented by illness, must attend continuously the meetings, which last for two days.

*Report.*—The Inspector reports to the Department.

*Director of Teachers' Institutes.*—The Director of Teachers' Institutes takes part in the proceedings, by discussing at least three subjects on the Programme, and by delivering a Public Lecture.

## 5. Teachers' Reading Course.

The Minister of Education has arranged a Course of Reading for Teachers, by means of which, while not ignoring professional obligations, they may carry on daily the work of self-culture, and at the same time learn to regard their vocation from a higher standpoint. The Course extends over three years, and embraces pedagogics, science and literature. It can be mastered in the allotted time, without difficulty—one hour per day being quite sufficient. It will be observed that the books in the Professional Course are those already used at the Normal School and Training Institutes, so that by taking them up in their Reading Course, the work required for entering the higher grades of the profession is simply prepared in advance.

As the Course is purely voluntary no examination will be held in connection with it. Should, however, the teachers of any Inspectoral Division agree to read the Course with this end in view, and should the County Board of Examiners make adequate provision for such examination, the Department would recognize by special certificate this additional element of professional culture. Such a certificate would, no doubt, be duly appreciated by trustees and the public generally, as it would entitle the holder to a strong claim upon their liberality. It will be the duty of the Directors of Teachers' Institutes to make such comments and give such directions to teachers in regard to the best methods of profiting by this Course as they may deem expedient.

## LIST OF BOOKS RECOMMENDED.

### Pedagogics.

#### *Third Class Teachers.*

(Two books to be taken in one year in the order given.)

1. Outlines of the Study of Man.—*Hopkins.*
2. Lectures.—*Fitch.*
3. Educational Reformers.—*Quick.*
4. Psychology of Cognition.—*Jardine.*
5. Education as a Science.—*Bain.*
6. Education.—*Spencer.*

These text-books are all on the Normal School Course for Second Class Teachers.

#### *Second Class Teachers.*

(Two books to be taken in one year in the order given.)

1. Systems of Education.—*J. Gill.*
2. Lectures on the History of Education.—*Jos. Payne.*
3. The Action of Examinations.—*H. Latham.*
4. School Management.—*Jos. Landon.*
5. Teachers' Manual and Method of Organization.—*R. Robinson.*
6. Culture Demanded by Modern Life.—*E. L. Youmans.*

The text-books named are all on the Professional Course for First Class Teachers.

#### *First Class Teachers.*

1. Psychology.—*Sully.*
2. Greek Education.—*Mahaffy.*
3. History of Pedagogy.—*Hailman.*
4. Mental Physiology.—*Carpenter.*
5. Education and Educators.—*Kay.*
6. The Schoolmaster.—*Ascham.*

### Physical Science and Natural History.

(Six books to be taken in one year in the order given.)

1. The Fairy Land of Science.—*Buckley.*
2. Ants, Bees, and Wasps.—*Sir John Lubbock.*
3. Sound Bodies for our Boys and Girls.—*Blaikie.*
4. Forms of Water.—*Tyndall.*
5. Physiography.—*Huxley.*
6. Heat as a Mode of Motion.—*Tyndall.*
7. Methods of Study in Natural History.—*Agassiz.*
8. Homes without Hands.—*Woods.*
9. Elements of Physical Geography.—*Geikie.*
10. Physical Geography of the Sea.—*Maury.*
11. The Races of Man.—*Peschel.*
12. Connection of the Physical Sciences.—*Somerville.*
13. Common Sense of the Exact Sciences.—*Clifford.*
14. Physical Forces.—*Faraday.*
15. The Sun.—*Proctor.*
16. Wild Animals, their Life and Habits.—*Wolf.*
17. Flowers and their Pedigrees.—*Grant Allan.*
18. Health.—*Corfield.*

### Literature and History.

(Eight books to be taken in one year in the order given.)

1. Julius Cæsar.—*Shakespeare.*
2. Every-day English.—*R. G. White.*
3. Selections from Wordsworth.—*M. Arnold.*
4. Milton and Wordsworth.—*English Men of Letters.*
5. Industrial Biography.—*Smiles.*
6. Short History of the English People.—*Green.*
7. Montcalm and Wolfe.—*Parkman.*
8. The English Constitution.—*Bagehot*
9. Macaulay's Life and Letters.—*Trevelyan.*
10. Getting on in the World.—*Matthews.*
11. Walks about Rome.—*Hare.*
12. Words and their Uses.—*R. G. White.*
13. Johnson's Chief Lives of the Poets. —*Matthew Arnold.*
14. Expansion of England.—*Seeley.*
15. Words and Places.—*Taylor.*
16. English Literature (condensed).—*Taine.*
17. The United Netherlands.—*Motley.*
18. Oliver Cromwell.—*Carlyle.*
19. Life of Johnson.—*Boswell* (*Murray's Edition.*)
20. Language and Languages.—*Farrar.*
21. Paradise Lost.—*Milton.*
22. Life and Correspondence of Thos. Arnold.—*A. P. Stanley.*
23. In Memoriam and the Princess.—*Tennyson.*
24. Nicholas Nickleby.—*Dickens.*

## 6. The Ontario Teachers' Association.

In January, 1861, about 120 delegates from the Teachers of the Province met in Toronto to establish among Canadian Teachers an Association similar to the "American National Teachers' Association" in the United States.

*Objects.*—The objects of the Association were: 1st, To secure the general adoption of the most approved systems of imparting instruction; 2nd, To secure the improvement of our Text Books, or adoption of others more suitable to the wants of the community; 3rd, To enlarge the views of teachers and stimulate their exertions for the advancement and diffusion of knowledge; 4th, To encourage the frequent interchange of ideas and kindly intercourse among the members of the profession throughout the country. The first President of the Association was the late T. J. Robertson, M.A., the first Principal of the Toronto Normal School.

*Enlargement.*—About ten years after its formation, a union with the "Ontario Grammar School Masters' Association" took place. As the result of this union, the Association resolved itself into three sections: The High School Section; The Inspector's Section; and The Public School Teachers' Section.

*Officers.*—These are a President; six Vice-Presidents; a Recording Secretary; a Corresponding Secretary; five Councillors; and one Delegate from each Branch Association.

*Standing Committees.*—Each of the three sections has a Standing Committee, which brings before the Annual Meeting of the Association a written report on the subject or subjects upon which it was appointed to deliberate.

## III. CLASSICAL SCHOOLS.

These schools are as follows :—

1. The High Schools.
2. The Collegiate Institutes.
3. Upper Canada College.

1797–1798.—In 1797 the Legislature of Upper Canada memorialized George III., soliciting a grant of land for the endowment of a Grammar School in each District, and a University for the whole Province. A favorable reply was received, and in the despatch to that effect it was specified that the Grammar Schools to be established were to be free. The acting Governor of Upper Canada, Peter Russell, Esq., President of the Executive Council, then requested the members of the Council, the judges and law officers of the Crown, to draw up a report. They did so, and in 1798 recommended a grant of 500,000 acres of land for the establishment of a Grammar School in each of the four Districts into which Upper Canada was then divided, and of a central University at some future time. They recommended, also, that a grant of £3,000 be made to each of the Districts, for the erection of "a plain but solid and substantial building, containing a school-room sufficient to hold one hundred boys without danger to their health from too many being crowded together; and also a set of apartments for the master." Kingston and Newark (now Niagara) were recommended as eligible sites; and to these, when funds were sufficient, Cornwall and Sandwich were to be added.

1803–1806.—In 1803 Mr. John Strachan (afterwards the first Bishop of Toronto), who had come from Scotland in 1799 to take charge of the projected college—which scheme had been abandoned—removed from Kingston to Cornwall, where he opened a private school, which was subsequently (1806) constituted the Grammar School of the District. In 1806 a temporary Act was passed by the Provincial Legislature (made permanent in 1808), establishing a Classical and Mathematical or Public School in each of the eight Districts into which Upper Canada was then divided, and granting the sum of £100 per school as the yearly stipend of the master, who was to be appointed by the Governor on the nomination of the Trustees, who were appointed in each District* by Lieutenant-Governor Gore.

1819.—In 1819 provision was made for an additional Grammar School; annual examinations were instituted; a report was to be sent to the Governor; and ten Common School pupils had to be educated free of charge. If the number of pupils did not exceed ten, the teacher's allowance was reduced to £50.

1831–1839.—In 1831 the House of Assembly recommended an annual grant of £4,400 for the support of eleven free Grammar Schools. In 1839 the District Schools were converted into Grammar Schools; five Trustees for each were to be appointed by the Government; a portion of the University endowment was applied to their support; and 250,000 acres of Crown lands were set aside as a permanent endowment. On condition of the inhabitants raising an equal sum, £200 was granted for the erection of the Grammar School in each District; also £100 to each of four other Grammar Schools, situated at least six miles from the county town, and attended by sixty pupils.

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* Eastern, Johnstown, Midland, Newcastle, Home, Niagara, London, Western.

1853–1858.—In 1853 an improvement in the condition of Grammar Schools was effected by the Chief Superintendent of Education. An Act passed at that time provided for the examination of candidates for the position of Head Master, who were not graduates. The Council of Public Instruction was also authorized to appoint Inspectors of High Schools and fix their salaries. In 1858 the Model Grammar School was established at Toronto to exhibit the best system of management and teaching, and to serve as a training school for Grammar School Masters. It was closed in 1863.

1865–1871.—In 1865 an Act relating to Grammar Schools was passed which contributed to the increased efficiency of these schools. In 1871 further legislation took place for the benefit of these schools. With a view to recognize the existence of a superior class of High Schools and to encourage their multiplication, the following important provision was inserted in the Act, viz.:—

> "Whereas it is desirable to encourage the establishment of superior classical schools, it shall be lawful for the Lieutenant-Governor in Council to confer upon any High School, in which not less than four masters are fully employed in teaching the subjects of the prescribed curriculum, and in which the daily average of male pupils studying the Latin or Greek language shall not be less than sixty, the name Collegiate Institute; and towards the support of such Collegiate Institute it shall be lawful for the Lieutenant-Governor in Council to authorize the payment of an additional sum, at the rate of, and not exceeding seven hundred and fifty dollars per annum, out of the Superior Education Fund, provided under the authority of the tenth section of the Consolidated Grammar School Act, passed in the twenty-second year of Her Majesty's reign, and chaptered sixty-three; Provided, that if in any year the average of pupils above described shall fall below sixty, or the number of masters be less than four, the additional grant shall cease for that year; and if the said average shall continue to be less than sixty, or the number of masters less than four, for two successive years, the institution shall forfeit the name and privileges of a Collegiate Institute, until restored by the Lieutenant-Governor in Council, under the conditions provided by this section."

1874–1879.—In 1874 a clause was introduced into the "High Schools' Act" requiring candidates for Head-masterships to present evidence of their knowledge of the Science and Art of Teaching, and of the Management and Discipline of Schools. An allowance of $50 a year was made to such schools as were able to give their pupils a course of elementary military instruction. In 1879 the Municipal Grant was made equal to the Legislative Grant.

1885.—In 1885 the Legislative Grant was apportioned on (1) basis of salaries paid to masters and assistants; (2) on character and equipments of school buildings and appendages; (3) on average attendance.

## I. The High Schools.

The High Schools, like the Public Schools, are open to pupils of both sexes who can pass an Entrance Examination based on the Fourth-class work of the Public Schools, excepting Music, Business Forms and Book-keeping. They are intended to furnish a higher English, or a classical course with modern languages, so that the pupils may be fitted to pass the Matriculation Examination of any of the Universities of Ontario; to enter business; or to pass the Teacher's NON-PROFESSIONAL examination.

*Legislative and Municipal Grants.*—The Municipal Grant to each High School is now by law made equal to the Legislative Grant, which is apportioned by the Minister of Education on the basis of salaries paid to masters and assistants; the character and equipment of school buildings and appendages and the average attendance of pupils.

### QUALIFICATIONS OF HEAD MASTERS AND ASSISTANTS.

The qualifications for the Head-mastership of a High School or Collegiate Institute are (*a*) a degree in Arts obtained, after a regular course of study, from any chartered University in the British Dominions, and (*b*) one year's successful teaching as Assistant Master in a High School, or in a College, or in a Private School.

A High School Assistant must hold a First-class Professional Public School Certificate; or be a Graduate in Arts (as above), or an Undergraduate in Arts of at least two years' standing, who has obtained a Professional Certificate at a Training Institute.

*High School Board.*—Each High School is a corporation under the government of a Board of six Trustees, who are appointed by the County Council, or in case of a city or town separated from a county, by the Council of each respectively.

*Duties.*—The High School Board appoints Teachers—a Head Master and at least one Assistant—possessing the qualifications required by the Regulations, provides for the requisite accommodation, furniture and apparatus, and upon its own requisition can require the Municipal Council of the district to raise such funds as the school may annually require.

*Inspection.*—It is the duty of each High School Inspector to visit the High Schools or Collegiate Institutes assigned to him, at least once in each year; to spend not less than one day in each school having two or three masters; in schools with four or over four masters, to spend two or more days, and report in each case to the Department the result of his observations and enquiry.

*Meteorological Observations.*—Masters of certain High Schools make Meteorological Observations and transmit monthly to the Education Department abstracts from their journals. For these observations an additional allowance at the rate of $15 per month is made for each consecutive month during which the observations are taken.

## COURSE OF STUDY IN HIGH SCHOOLS AND COLLEGIATE INSTITUTES.

Pupils, on entering the High School, must pursue one or other of the following courses: (*a*) That prescribed for a High School Commercial Course. (*b*) That prescribed for Matriculation into any of the Universities of Ontario, or for the Preliminary Examination of any of the learned professions. (*c*) That prescribed for a Teacher's Non-Professional Certificate. Special Classes for the study of Agricultural Chemistry may be established by the Trustees, with the concurrence of the Head Master.

### *Form I.*

1. READING (ORAL) AND PRINCIPLES OF.—A general knowledge of the principles of elocution; reading with proper expression, emphasis, inflection, and force.

2. ORTHOGRAPHY AND ORTHOEPY.—The pronunciation, the syllabication, and the spelling from dictation, of passages from any English author, and the spelling of all non-technical English words.

3. ENGLISH GRAMMAR.—Etymology and Syntax; exercises.

4. COMPOSITION.—The framing of sentences and paragraphs; familiar and business letters; paraphrasing; synonyms; correction of errors; themes based on the prose literature prescribed for this Form.

5. LITERATURE.—The critical reading of such works as may be prescribed by the Education Department, from time to time.

6. HISTORY.—The leading events of Canadian and English History.

7. GEOGRAPHY.—Political, Physical, and Mathematical Geography. Map Geography generally; Canada and the British Empire more particularly.

8. ARITHMETIC AND MENSURATION.—Arithmetic in theory and practice; areas of rectilinear figures, and volumes of right parallelopipeds and prisms; the circle, sphere, cylinder, and cone; Mental Arithmetic.

9. ALGEBRA.—Elementary rules; factoring; greatest common measure; least common multiple; fractions; simple equations of one, two, and three unknown quantities; simple problems.

10. EUCLID.—Book I., with easy problems.

12. PHYSICS.—The elements of Physics, as treated in Huxley's Introductory Science Primer, and Balfour Stewart's Science Primer.

14. BOTANY.—The elements of structural Botany, including systematic examinations of common plants selected to show variety of structure in the different organs; true nature of the parts of the flower; various forms of roots, structure and uses, how distinguished from underground stems; various forms of stems, bulbs and tubers, herbs, shrubs and trees; nature and position of buds; forms and disposition of foliage leaves; kinds of inflorescence, special forms of flower-leaves, morphology of the calyx, corolla, stamens, and pistil; modifications of the flower due to adhesion, cohesion, and suppression of parts; classification of fruits; the seed and its parts; germination; the vegetable cell; protoplasm; chlorophyll; formation of new cells; various kinds of tissues; intercellular spaces; structure of leaves; exogenous and endogenous growth; food of plants; reproduction in flowering plants; nature of the pollen-grain; fertilization of the ovule; reproduction in ferns; the spore. Outlines of classification; examination and classification of common plants belonging to the following natural orders:—Ranunculaceæ, Cruciferæ, Malvaceæ, Leguminoisæ, Rosaceæ, Sapindaceæ, Umbellifræ, Compositæ, Labiatæ, Coniferæ, Araceæ, Liliaceæ, Triliaceæ, Iridaceæ, Gramineæ; the characters and general properties of these orders.

15. LATIN.—The Elementary Latin Book, grammar, composition, and the texts prescribed from time to time by the Education Department.

16. GREEK.—The Elementary Greek Book.

17. French.—The Elementary French Book, grammar, composition, and the texts prescribed from time to time by the Education Department.

18. German.—The Elementary German Book, grammar, composition, and the texts prescribed from time to time by the Education Department.

19. Writing.

20. Book-keeping.—Single and double entry ; commercial forms ; general business transactions.

21. Drawing.—Freehand ; practical Geometry ; perspective ; industrial designs. (See Appendix C.)

22. Music.—Vocal and Theoretical.

### *Form II.*

1. Reading—Course for Form I. continued.

2. Orthography and Orthoepy.—Course for Form I. continued.

3. English Grammar—Course for Form I. continued. (As prescribed for the Pass Matriculation Examination of the University of Toronto).

4. Composition.—Course for Form I. continued.

5. Literature.—The critical study of the texts prescribed from time to time for the Pass Matriculation Examination of the University of Toronto.

6. English History (including Colonial History).—From William III. to George III. inclusive. Roman History from the commencement of the Second Punic War to the death of Augustus. Greek History from the Persian to the Peloponnesian Wars, both inclusive (University Pass).

7. Geography, Modern.—North America and Europe. Ancient.—Greece, Italy, and Asia Minor (University Pass).

8. Arithmetic.—Course for Form I. continued (University Pass).

9. Algebra.—To the end of Quadratics (University Pass).

10. Geometry.—Euclid, Books I., II., III. ; easy deductions (University Pass).

12. Physics.—Definitions of velocity, acceleration, mass, momentum, force, moment, couple, energy, work, centre of inertia, statement of Newton's Laws of Motion, composition and resolution of forces, condition for equilibrium of forces in one plane. Definition of a fluid, fluid pressure at a point, transmission of fluid pressure, resultant fluid pressure, specific gravity, Boyle's Law, the barometer, air-pump, water-pump, siphon (University Matriculation Examination).

13. Chemistry.—Reynolds' Experimental Chemistry (Chaps. I. to XVI. inclusive).

14. Botany.—Course in Form I. continued.

15. Latin ; 16. Greek ; 17. French ; 18. German.—Examination subjects as prescribed from time to time for Pass Matriculation into the University of Toronto.

19. Writing.—Course for Form I. continued.

20. Book-keeping and Commercial Transactions.—Course for Form I. continued.

21. Drawing.—Course for Form I. continued.

22. Music.—Course for Form I. continued.

23. Precis-writing and Indexing.

24. Phonography (optional).

### *Form III.*

3. English Grammar.—Course for Form II. continued.

4. Composition.—Course for Form II. continued.

5. Literature.—The critical study of the texts prescribed from time to time for Honor Matriculation into the University of Toronto.

6. History.—English History under the Houses of Tudor and Stuart.

7. Geography.—The British Empire, including the Colonies (Honor Matriculation University.)

9. Algebra.—To the end of Binomial Theorem (Honor Matriculation University).

10. Geometry.—Euclid, Books I. to IV. inclusive, Book VI. and definitions of Book V. (Honor Matriculation University).

11. Trigonometry.—(Honor Matriculation University) The solution of Triangles.

13. Chemistry.—Reynolds' Experimental Chemistry, Chaps. I. to XXVI. inclusive. (University Matriculation Examination.)

14. Botany.—The structure and classification of Canadian flowering plants (University Matriculation Examination.)

15. Latin ; 16. Greek ; 17. French ; 18. German.—Examination subjects as prescribed from time to time for Honor Matriculation into the University of Toronto.

### *Form IV.*

The subjects for study in Form IV. are those now prescribed by the University of Toronto for Senior Matriculation, Pass and Honors. As far as possible, the classes shall be the same as those in Forms II. and III.

### *Commercial Course.*

Candidates for a diploma in the Commercial Course are examined at the same time and place, and on the same papers as candidates for Second-class Non-Professional Certificates, that is to say, in the following subjects as prescribed for Form II., excepting Ancient History and Geography, viz :—Nos. 1-10, 13, 21, with an option between 15 or 17 or 18, group 12 and 14, and group 19, 20, and 23.

### *Graduation Diploma.*

Any pupil who passes the Departmental or the University Examination in any of the courses prescribed for Forms II., III. or IV., in High Schools, is entitled to a Graduation Diploma signed by the Minister of Education and the Head Master of the High School at which such course was completed.

### STATISTICS relating to the HIGH SCHOOLS OF ONTARIO for the years 1854, 1864, 1874, 1884.

| ——— | | 1854. | 1864. | 1874. | 1884. |
|---|---|---|---|---|---|
| Population | | 950,551<br>in 1850. | 1,396,091<br>in 1860. | 1,620,851<br>in 1870. | 1,913,460<br>in 1880. |
| No. of Schools | | 64 | 95 | 108 | 106 |
| No. of Pupils attending Schools | | 4,287 | 5,589 | 7,871 | 12,737 |
| No. of High School Teachers | | 99 | 139 | 248 | 358 |
| Amount of Legislative Grant | | $21,939 | $45,604 | $76,874 | $85,206 |
| Amount of Municipal School Grants and Assessments | | $17,496 | $35,266 | $156,826 | $220,668 |
| Other Receipts | | $11,618 | $9,974 | $65,260 | $102,103 |
| Total Income from all Sources | | $51,053 | $90,844 | $298,960 | $407,977 |
| Paid Masters' Salaries | | $43,490 | $73,258 | $179,946 | $282,776 |
| Paid for Sites, Buildings and Repairs. | | $3,404 | $6,139 | $63,684 | $34,013 |
| Other Expenditures | | $139 | $6,419 | $42,963 | $68,637 |
| Total Expenditures | | $47,033 | $85,816 | $286,593 | $385,426 |
| No. of School-Houses. | Wood | 36 | 34 | 21 | 6 |
| | Stone or Brick | 28 | 61 | 87 | 100 |

## 2. Collegiate Institutes.

The High School Act, passed in 1885, contains the following provision in regard to Collegiate Institutes, viz.:—

> On the Report of the Minister of Education, and subject to the regulations of the Education Department, any High School having—
>
> (1) Suitable school buildings, out-buildings, grounds and appliances for physical training ;
>
> (2) Library, containing standard books of reference bearing on the subjects of the programme ;
>
> (3) Laboratory, with all necessary chemicals, and apparatus for teaching the Elements of Sciences ;
>
> (4) Four Masters at least, each of whom shall be specially qualified to give instruction in one of the following departments : Classics, Mathematics, Natural Science and Modern Languages, including English ;
>
> (5) Such other Assistants as will secure thorough instruction in all the subjects on the curriculum of studies for the time being sanctioned by the Education Department for Collegiate Institutes ;
>
> May be constituted a Collegiate Institute by order of the Lieutenant-Governor in Council.

STATISTICS RELATING TO COLLEGIATE INSTITUTES.

| LOCALITY. | Annual Income. | Number of Masters. | Number of Pupils. |
|---|---|---|---|
| | $ | | |
| Barrie | 5,145 | 5 | 171 |
| Brantford | 11,564 | 8 | 305 |
| Cobourg | 4,482 | 4 | 166 |
| Collingwood | 9,109 | 5 | 208 |
| Galt | 9,536 | 5 | 139 |
| Guelph | 4,996 | 4 | 205 |
| HAMILTON (Training Institute for Assistant High School Masters and First Class Public School Teachers) | 14,100 | 15 | 562 |
| KINGSTON (Training Institute for Assistant High School Masters and First Class Public School Teachers) | 5,940 | 9 | 160 |
| London | 11,082 | 8 | 294 |
| Ottawa | 10,500 | 8 | 268 |
| Owen Sound | 5,164 | 5 | 194 |
| Perth | 5,000 | 4 | 110 |
| Peterboro' | 6,690 | 6 | 170 |
| St. Catharines | 7,500 | 7 | 200 |
| St. Mary's | 4,492 | 5 | 222 |
| St. Thomas | 7,500 | 7 | 250 |
| Stratford | 8,000 | 7 | 235 |
| Strathroy | 6,278 | 5 | 245 |
| Toronto | 14,000 | 12 | 424 |
| Whitby | 5,800 | 9 | 140 |

## 3. Upper Canada College.

The history of this College dates back to the year 1828, when Sir John Colborne, who had just been transferred from the Governorship of one of the Channel Islands to that of Canada, being of opinion that the country was not ripe for a University on the scale contemplated in a Royal Charter which had been procured for that purpose, thought it better to found a preliminary and preparatory institution which should meet the immediate educational wants of the country. It was a transcript, more or less close, of an institution in the Island of Guernsey—Elizabeth College—which Sir John had been so recently engaged in reviving. Plans for the erecting of a school-house and four dwelling-houses in connection with "Minor College," as it was frequently termed, in allusion to the university that was to be, were called for in May, 1829, and the College was opened on the 8th of January following. Meanwhile work was carried on in the old Royal Grammar School. The authorities have always kept before them as a model the great public schools of England, and it still continues to be carried on with special regard to that union of the culture of high moral principle with the production of sound scholarship, which is the ideal aimed at in those institutions.

*Endowment.*—At the time of its foundation it was endowed with a large grant of public lands, from which it now derives an annual income of $15,000, in addition to its building and grounds in the City of Toronto. Its pupils number about 300, and it aims at preparing them for matriculation in the Provincial and other Universities, and for different professions and pursuits. It is governed by a Committee of the Senate of the Provincial University, of which it was made an adjunct in 1837, under statutes passed by it from time to time; but such statutes are subject to the approval of the Lieutenant-Governor.

The College can accommodate from 250 to 300 pupils; and since its opening in 1829 upwards of 7,000 of the youth of the Province have received their education, in whole or in part, within its walls.

## COURSE OF INSTRUCTION.

FORMS.—The College is divided into Six Forms or Classes, and the regular curriculum extends over a course of six years; though, by steady application and hard study, some boys are able to pass through the Six Forms in five or even four years.

CURRICULUM.—The full curriculum embraces an extended course in Latin, Greek, Mathematics, French, German, English Grammar, Literature and Composition, History and Geography, both ancient and modern, Experimental Chemistry, Physiology, Biblical Knowledge, the usual Commercial Branches, Drawing, Music, Gymnastics, Fencing, and Drill Exercises.

EXHIBITIONS.—Eight exhibitions, entitling the holders to free tuition for a year in the College or any High School or Collegiate Institute, and to $30 in money, are annually awarded in the Fourth and Fifth Forms.

PRIZES.—1. The Governor-General's Silver Medal, awarded to the pupil of the Fifth Form who stands highest in the final examinations. 2. Books to the value of $300 are given by different friends.

LABORATORIES, ETC.—Two laboratories—chemical and physical—with apparatus to the value of $500, are used in connection with the College work.

**Library.**—The pupils have access to a library containing about 1,200 volumes.

**Gymnasium.**—Physical culture is also attended to, as there is a well-equipped gymnasium in the College grounds, and among the instructors is a teacher of fencing, gymnastics, and drill.

## IV. THE UNIVERSITY OF TORONTO.

### UNIVERSITY LEGISLATION IN ONTARIO.

Before giving a detailed account of the Provincial University, and the other Universities and Colleges of the Province, a brief summary of the different Legislative enactments made from time to time may be interesting.

1819.—It has been already noted (page 5) that the project for a College, which had engaged much attention, was abandoned at the close of the last century. But in 1819 the Executive Council again took the matter into consideration, and recommended that 500,000 acres of land be disposed of for the purpose of establishing a University. The estimate of the Council comprised £10,000 for buildings and appliances, with £4,000 per annum for salaries, scholarships, and contingencies.

1820.—In 1820 it was enacted that on the establishment of a University it might be duly represented in Parliament. In March, 1827, the charter of King's College was obtained by Sir Peregrine Maitland, and Lord Bathurst's despatch promised a grant of £1,000 per annum for the College buildings. The Governor was directed to endow King's College from the Crown Reserves.

1828-9.—In 1828-9 the Wesleyan Methodists began to move for the establishment of their Upper Canada Academy in Cobourg, which, in the year 1841, became the University of Victoria College, under the presidency of the Rev. Dr. Ryerson, and received an annual grant of £500 from the Legislature. The College opened with the Faculty of Arts; Medicine was added in 1854, Law in 1862, and Theology in 1872.

1835.—In 1835, by the will of the Right Rev. Bishop Macdonell, of Kingston, four acres of land were devised for a proposed Roman Catholic College, which was afterwards incorporated as Regiopolis College, and was opened at Kingston in 1846. It is not now in operation.

1837.—In 1837 the Provincial Legislature, having been authorized by the Imperial Government to deal with the Charter of King's College, passed an Act amending the same and connecting Upper Canada College with the University.

1840-1.—In 1840 an Act incorporating a Presbyterian College at Kingston was passed and reserved for the Queen's pleasure, but in 1841 Her Majesty granted a Royal Charter to the Institution, as "Queen's College at Kingston." The Faculties of Theology and Arts were thereupon established; Medicine was added in 1854, and Law in 1861.

1842.—In 1842 the foundation stone of King's College was laid by Sir Charles Bagot, Governor, and in June, 1843, the University was formally opened under the Presidency of the Right Reverend Bishop Strachan.

1843.—In 1843 an effort was made to affiliate King's College and Queen's College, but it failed, and an agitation began under which King's College Charter was again amended by the Act of 1849, and the Toronto Institution was denuded of its Theological Faculty.

1848.—In 1848 St. Joseph's College was established at Bytown (Ottawa). It is now known as the College of Ottawa.

1851-2.—The authorities of the Church of England in this Province, having determined upon the establishment of another University, on the abolition of the Faculty of Theology in King's College, obtained an Act of Incorporation in 1851 for a new College, and in 1852 a Royal Charter issued to the University of Trinity College, Toronto, and the Diocesan School of Theology, at Cobourg, which had been in existence for several years under the Venerable Archdeacon Bethune, who subsequently became the second Bishop of Toronto, was thereupon merged in it.

1853.—In 1853 the Legislature again amended the Charter of the University of Toronto (the new name of King's College), and separated the University from the College, depriving it at the same time of the Professors of Law and Medicine. By this Act the University became the examining body, also conferring degrees in Arts, Law, and Medicine, and the College was constituted a teaching institution for the faculty of Arts. Convocation was abolished, and the government was vested in a Senate appointed by the Crown.

1857.—In 1857 the Methodist Episcopal Church established a Seminary at Belleville for the education of students of both sexes, which in 1866 and 1871 was incorporated as the University of Albert College (now affiliated as Albert College with Victoria University).

1868.—In 1868 the annual Legislative Grants, which had been long enjoyed, were withdrawn from the following institutions: Victoria College, $5,000, and $750 for Medical Faculty; Queen's College, $5,000; Regiopolis, $3,000; St. Michael's College, $2,000; Trinity College, $4,000; Ottawa College, $1,400; L'Assumption College, $1,000; and $750 each for the Medical Faculties of Kingston and Toronto.

1873.—In 1873 another Act modifying the Constitution of the University of Toronto was passed. The main features will be found in the account of the University of Toronto on page 43.

1874.—In 1874 the Charter and Acts relating to Victoria College were repealed, and a new Act passed for the appointment of the College Board by the General Conference of the Methodist Church of Canada. By this same Act the Senate was composed of the President and the Professors of the different Faculties, with power to confer degrees in Arts, Science, Law, Divinity and Medicine. The Board of Trustees of Queen's College was made a self-perpetuating body, and the University became the University of the Presbyterian Church in Canada. Convocation was composed of Trustees, Lecturers, Tutors, Fellows, Graduates and Alumni, or students being undergraduates; a Council was organized; provision made for the registration of Graduates or Alumni as might desire to vote for elective members of the Council and for the Chancellor; the Principal was declared to be Vice-Cancellor, and the Board of Trustees were empowered to elect a Vice-Principal.

1878.—In 1878 the Western University of London, Ont., was incorporated, and power given to Huron College to affiliate.

1879.—In 1879 provision was made by Act of Parliament that the Dean of the Faculty of Theology should be nominated by the "Board of Victoria College" and appointed by General Conference. In the election of representatives of the alumni to the Senate all graduates of three years, and registered, were entitled to vote and declared eligible for election.

1881.—In 1881 power was given to Knox College to confer degrees in Divinity.

1883.—In 1883 certain changes were made in the "Board of Victoria College" by the addition of six representatives of the graduates and of the President. The Senate was also increased by the addition of the Principal and Professors from the Wesleyan Theological College, Montreal.

1884.—In 1884 Victoria University was formed by the amalgamation of Victoria College and Albert College. All powers and functions were vested in the General Conference of the Methodist Church. The title of the Board was changed to "The Board of Regents of Victoria University." The President was constituted Chancellor, and a Vice-Chancellor was to be elected by the graduates every two years. The number of representatives of the graduates was increased to eight, and affiliated institutions were allowed representation. By the Act passed this year the High School Masters were allowed two representatives on the Senate of the University of Toronto, and that University was empowered to grant the degree of LL.D. *honoris causa.*

### Periodicals Published by Students at the Universities and Colleges.

| | |
|---|---|
| *The 'Varsity* | University of Toronto. |
| *Acta Victoriana*<br>*Kosmos* | Victoria University. |
| *Rouge et Noir* | University of Trinity College. |
| *Queen's College Journal* | Queen's University. |
| *The Sunbeam* | Ladies' College, Whitby. |
| *The Portfolio* | Wesleyan Ladies' College, Hamilton. |
| *Knox College Monthly* | Knox College, Toronto. |

## UNIVERSITY OF TORONTO AND UNIVERSITY COLLEGE.

These two corporations constitute the Provincial University. The University was originally established by Royal Charter in 1827, under the title of King's College; the President being required to be a clergyman of the United Church of England and Ireland, and the government was vested in the "College Council," composed of the Chancellor and the President, and of seven of the Professors, members of the Established Church, but no religious test or qualification was to be required of students, or admission to any degree in any Art or Faculty, excepting in Divinity. In consequence of a feeling of discontent engendered by its exclusive character, the Charter was amended in 1834, and it was provided that in future the President need not be an incumbent of an ecclesiastical office, nor need any member of the Council, nor any Professor, be a member of the Church of England, and no religious test was required of students. The institution was inaugurated and the first students admitted in 1843, and the first Convocation was held in 1844.

In 1849 the University, as established by Royal Charter, was changed into that of the "University of Toronto." By this Act a change was made in the composition of the Senate, and the Faculty of Divinity was abolished, and a "Caput," consisting of the President, the Deans of the three Faculties, and a fifth member, appointed by Convocation, was formed.

In 1853 another Act was passed, under which the University was constituted with two corporations, "The University of Toronto" and "University College," the functions of the former being limited to the examination of candidates for degrees in the several Faculties, or for scholarships and honors, and the granting of such degrees, etc.; those of the latter being confined to the teaching of subjects in the Faculty of Arts. The corporation of the University now consisted of the Chancellor, appointed by the Lieutenant-Governor, the Vice-Chancellor, elected by the Senate, and such other members of the Senate as the Governor may appoint, Convocation having been abolished. By this Act certain institutions, from which students might be examined, were affiliated with the University.

In 1873 further amendments were made in the constitution of the University. The Chancellor was made elective for a period of three years by Convocation, which was then re-established. The Senate was composed of the Chancellor, several *ex-officio* members, fifteen elected by Convocation and nine appointed by the Lieutenant-Governor in Council, for respective terms. Convocation was composed of all Graduates in Law, Medicine and Surgery, all Masters of Arts, and Bachelors of Arts of three years' standing, all Doctors of Science, and Bachelors of Science of three years' standing. By this Act the powers of the Senate were extended to all branches of knowledge, literature, science and arts, and also to granting certificates of proficiency to women; the power of affiliation was likewise extended; the Senate was also empowered to provide for local examinations.

1881.—By the Act passed in 1881 it was enacted that Convocation should consist of the Graduates in the several Faculties of the University, and that each Graduate should be a member of Convocation.

In 1884 the University was empowered to confer the degree of LL.D. *honoris causa;* the representation of the High School Masters on the Senate was increased to two, and "each legally qualified assistant teacher" was entitled to select from the Registrar's List a name to be voted on.

*Senate.*—The Senate consists of (1) the Chancellor; (2) twenty-four members—fifteen elected by Convocation and nine nominated by the Lieutenant-Governor in Council; and (3) certain *ex-officio* members: the Minister of Education; the President of University College; the Principal of Upper Canada College; a representative of the Law Society; two representatives of High School Masters; all former Chancellors and Vice-Chancellors, and two members of the Council of University College, triennially in rotation. (4) Members of Convocation.

*Convocation.*—This consists of the Graduates in the several Faculties, and their powers are clearly defined by Act of Parliament. This body meets at least once a year, but may meet at such times and places as the Executive Committee may order.

*Faculties.*—Degrees are granted in the Faculties of Arts, Law, Medicine and Engineering; instruction in the Departments of Arts and Science being given in University College and the School of Practical Science.

*College Council.*—The President, the Vice-President, the Professors of the different Faculties, and the Dean of Residence, form this body, which makes statutes for the good government and discipline of the College, Professors, etc., and generally for the management of the property and business thereof.

*Functions.*—The Functions of the University comprise the examinations of candidates for standing, scholarships and degrees in the several Faculties. It prescribes the curriculum of study, and appoints the examiners and conducts the respective examinations; it also maintains a library and museum.

*Co-Education.*—The Legislature of the Province, in 1884, passed the following resolution on this subject, viz.:—

> That inasmuch as the Senate of the Provincial University, having for several years admitted women to the University examinations and class lists, and inasmuch as a considerable number of women have availed themselves of the privilege, but labor under the disadvantage of not having access to any institution which affords tuition necessary in the higher years in the course; in the opinion of this House provision should be made for that purpose as early as practicable in connection with University College. (This has been done.)

*Instruction.*—The work of instruction is performed by University College through its Professors and Lecturers. This College and the University are maintained out of the common endowment of the Provincial University, which is administered by the Bursar's Department, under the control of the Lieutenant-Governor in Council. University College is governed by a Council composed of the President and Professors. The following chairs have been established in the College, namely:—Classical literature, logic and rhetoric, mathematics and natural philosophy, chemistry and experimental philosophy, history and English literature, mineralogy and geology, metaphysics and ethics, meteorology and natural history, and lectureships on Oriental literature, in German and French.

The course of instruction follows that prescribed by the curriculum of the University of Toronto, and involves four academic years, each consisting of two terms.

The students are required to pass a matriculation examination before being recognised as regular students of the University, or entitled to its degrees. They are required to pass annual examinations in the University, so as to gain standing year by year, as well as for the particular degrees. Students who are not matriculated may attend lectures in the different departments. The junior matriculation examination is prescribed by the University Statutes.

## EXAMINATIONS.

1. All Matriculated Students are required to attend the College Examinations in every department or branch prescribed by the University of Toronto as necessary for their respective standings.

2. Prizes and Honors in the College are awarded in each department on the result of the Examinations at Easter, with additional Examinations at Christmas, at the discretion of each Professor or Lecturer.

3. Candidates for Prizes and Honors are arranged, according to their Proficiency, in two classes, and those who are not Candidates for Prizes and Honors, or who fail to obtain Honors, are similarly arranged in the Third Class; but no name of a Candidate for Honors shall be entered on the Class Lists until he has passed in all the prescribed subjects.

4. Certificates of Honor in each department are awarded to those Students who have been placed in the First Class at the Examinations.

5. The Examinations for both Pass and Honors in the University for all Students of the Second and Third Year attending Lectures in University College, will be conducted by the Professors, Tutors, and Lecturers of the College, and conjointly with Associate Examiners appointed by the Senate, at the same time as the University Examinations for the First and Fourth Years.

6. Non-matriculated Students are not required to attend the Examinations, unless they are Candidates for Prizes or Honors, or desire to obtain Certificates of attendance.

Matriculation Examinations for the Provincial and other Universities and Colleges may be held, under the direction of the Education Department, at the same time and the same places as the Examinations for Certificates to First and Second-class Teachers.

## FELLOWSHIPS.

Seven Fellowships, of the value of $500 each, are open for appointment each year, on the recommendation of the College Council. The selection will be made immediately after the publication of the result of the University Examinations in May, from among the Graduates of the University of Toronto.

The Statute requires that each Fellow shall be appointed annually ; but he may be reappointed for a period not exceeding in all three years.

Each Fellow is required to assist in the teaching and practical work of the Department ; to pursue some special line of study therein ; and to devote his entire time during the College Terms to the work of the Department, under the direction of the Professor or Lecturer.

The Statute provides that "The Fellows shall be appointed from among the Graduates of the University of Toronto, on the recommendation of the College Council, and shall be selected with a special view to their aptitude for teaching, along with their acquirements in the work of the Department to which each Fellowship is attached." And also that "Every Fellow on accepting his appointment shall come under an obligation to fulfil the duties of his Fellowship during the College Terms of the Academic Year in which he is appointed, unless specially exempted by resolution of the College Council."

## MEDALS AND SCHOLARSHIPS.

The Governor-General (Lord Lansdowne) has presented a silver medal for annual competition in University College. It is open to the competition of honor students of the third year. Mr. John Macdonald has given an annual scholarship of $50 for general proficiency to second year students. Prizes in books are also awarded. The Prince of Wales' annual scholarship of $50 is open to competition to junior matriculants of the University. The Mary Mulock scholarship is awarded for proficiency in classics. In addition to these special scholarships, there are also a number of other University scholarships and prizes open to competition.

## STATISTICS OF THE UNIVERSITY OF TORONTO AND UNIVERSITY COLLEGE, 1884–85.

| Name and Locality. | Date of Establishment or Incorporation. | Annual Income. | Source of Income. | Amount of Endowment. | Capital invested in Buildings, etc. | Number of Professors. | Number of Tutors or Lecturers. |
|---|---|---|---|---|---|---|---|
| UNIVERSITY OF TORONTO and UNIVERSITY COLLEGE, Toronto. | 1853. Provincial Act of Parliament. | About $76,000. | About $8,000 Fees,<br>$67,600 Endowment,<br>$400 Scholarship gifts. | About $1,000,000. | $500,000. | Nine (9). | Sixteen (16). |

| Faculties. | Length of Course. | Number of Students in each Year of Course. | | | | | Number of Graduates. |
|---|---|---|---|---|---|---|---|
| | | 1st Year. | 2nd Year. | 3rd Year. | 4th Year. | Total. | |
| I.—Arts. | | | | | | | |
| 1. Classical Literature | 4 Years. | 68 | 99 | 72 | 61 | 300 | |
| 2. Mathematics and Physics | " | | | | | | In Arts ...... 1,051 |
| 3. Rhetoric and English Literature | " | Students in Special Subjects | | | | 91 | |
| 4. Modern Languages, viz.:— | | | | | | | In Medicine.. 522 |
| French | 4 Years—2 Years each, *i.e.*, 3rd and 4th Years. | | | | | 391 | In Law ...... 137 |
| German | | | | | | | |
| Italian | | | | | | | |
| 5. Chemistry | 4 Years. | | | | | | |
| 6. Oriental Literature, viz.:— | | | | | | | 1,710 |
| Hebrew | 3 Years *i.e.*, 2nd, 3rd and 4th Years. | | | | | | |
| Chaldaic | 2 Years, *i.e.*, 3rd and 4th Years. | | | | | | |
| 7. History and Ethnology | 3 Years each, *i.e.*, 2nd, 3rd and 4th Years. | | | | | | |
| 8. Mineralogy and Geology | " " " | | | | | | |
| 9. Logic, Metaphysics and Ethics | " " " | | | | | | |
| Agriculture | 2 Years. | | | | | | |
| 10. Natural History, including | 4 Years. | | | | | | |
| 11. Zoology and Botany | | | | | | | |
| II.—Medicine. | | | | | | | |
| III.—Law. | | | | | | | |

| Schools connected with Institution. | Laboratories. | | | | Apparatus. | | Number of Volumes in Library. | Museums and their Nature. |
|---|---|---|---|---|---|---|---|---|
| | Chemical. | Physical. | Mechanical. | Other. | Kind. | Value. | | |
| Eight (8) | Two. | One. | ........ | Biological. | 1. Physical.<br>2. Chemical.<br>3. Biological. | $14,000<br>11,000<br>2,500 | 28,000 | 1. Natural History.<br>2. Mineralogical and Geological.<br>3. Ethnological. |

## V. TECHNICAL SCHOOLS.

Under this head are included the following :—

1. The School of Practical Science.
2. The Ontario School of Art.
3. The Agricultural College.

### I. The School of Practical Science.

Prior to the year 1871 there was no institution in the Province for practical instruction in the industrial sciences. In 1870 the Government of the Province issued a commission to Dr. Hodgins, Deputy Superintendent of Education, and to Dr. Machatti, of London, directing them to proceed to the United States for the purpose of inspecting and reporting upon any Technical or Science Schools or Colleges there established, as to their buildings, departments of study and general appliances. On their return a Report was submitted to the Government, with full details as to the cost of the proposed institution. The Government acted upon the information contained in their Report, and with a grant of $50,000 established a "College of Technology" in Toronto. The location was found to be unfavorable, and the building defective. Consequently, in 1877, the Hon. Adam Crooks, Q.C., Minister of Education, had the building sold, and a suitable one was erected close to the Provincial University. In this way the services of four of the University Professors were engaged in the following Departments of the School, viz., Chemistry, Natural Philosophy, Geology and Mineralogy, Natural History and Botany. The new building was opened for students in September, 1878.

COURSE OF STUDY.—The course embraces three departments : 1. Engineering—Civil and Mining. 2. Assaying and Mining Geology. 3. Analytical and Applied Chemistry.

SPECIAL COURSE.—A course in BIOLOGY, for the benefit mainly of Medical Students, is conducted partly by Lectures in University College, and partly by Practice in the School. The subjects of the former: Elementary Botany; Cryplogamic Botany ; Zoology ; Comparative Anatomy of Vertebrata. Of the latter: Elementary Practical Biology ; Advanced Course ; Specialized Course for Study of Vertebrate Anatomy ; Histology.

DIPLOMAS, ETC.—Diplomas are issued in each of the three Departments on a student's completing a regular course of three years. Certificates of attendance and standing are, on certain conditions, issued for any separate course or group of courses. In the Department of Engineering, the University of Toronto confers the Degree of C.E. on holders of the School's Diploma who have practised their Profession for three years after receiving such Diploma.

PRIZES.—Books to the value of $45 are awarded as prizes in each year of the course.

LABORATORY.—The Physical Laboratory is furnished with a large collection of apparatus for *Lecture* experiments in the Departments of Mechanics, Sound, Light and Heat. It is also well supplied with instruments for *individual* work in the same Departments. In addition, there are *special* laboratories which offer unusual facilities for conducting experiments in Sound and Heat. There is also a special Optical room.

Libraries, Museums, etc.—The Library of the School is well provided with works bearing upon the more technical parts of the regular courses. The Library, Museums and Herbarium of the University of Toronto are open to regular students.

## 2. Ontario School of Art.

In the year 1875 a deputation from the Ontario Society of Artists waited upon the Hon. Mr. Crooks, Treasurer of the Province, to represent the public benefit that would result if an Art School were established in connection with their Society. The result of their application was a grant of $1,000, with the condition that at the commencement the Society would give the tuition without remuneration. The School opened in October, 1876, under the management of a Council composed of the Provincial Treasurer and six representatives of the Society. In the course of a few years the School was removed to the Education Department buildings, so that the teachers-in-training in the Normal School might avail themselves of its advantages and the objects of Art in the museum, which had been collected in 1855-58 by the late Chief Superintendent with that special object in view. [Ed. Report, 1858.] An arrangement was entered into between the Department and the Society, and classes were established specially adapted for mechanics, teachers, and Normal School students. The School opened in its new quarters on 10th October, 1882. After the fourth session, ending in April, 1884, the Society of Artists resigned its connection with the School of Art. It is now under the direction of the Minister of Education and is managed by a Superintendent.

*Object of the School.*—The aim of the School is to prepare such teachers as may be required for teaching Industrial Drawing in Public and High Schools, Mechanics' Institutes, and Industrial Art Schools; also to provide Technical Instruction and Art Culture to persons employed in the various trades, manufactures, etc., requiring artistic skill.

### COURSE OF INSTRUCTION.

#### Primary—Grade B.

Freehand from the "Flat."
Practical Geometry.
Linear Prespective.
Model Drawing.
Memory and Blackboard Drawing.

Students must pass the necessary Examinations in two of these subjects before they can be permitted to study in the advanced classes.

#### Second, or High—Grade A.

Shading from Flat Examples.
Outline Drawing from the "Round" (Casts or Nature).
Shading from the "Round."
Drawing from Flowers and objects of Natural History.
Advanced Perspective.
Descriptive Geometry and Typographical Drawing.
Drawing from Dictation.
Machine Drawing.
Building Construction.
Industrial Design.

#### Special Subjects.

Painting in Oil and Water Colors.
Modelling in Clay and Wax.
Wood Engraving, including Pictorial Work.
Wood Carving.

**Certificates.**—A Proficiency Certificate is awarded for each subject. A Certificate, Grade B, entitling the holder to teach Drawing in High Schools, Model Schools, or Mechanics' Institutes, is awarded to a student who passes in *all* the subjects of the Primary Course. A Certificate, Grade A, is awarded to a student who passes in the *first eight* subjects of the Advanced Course. The holder is legally qualified to teach in an Art School.

**Medals.**—The Minister of Education presents a Gold Medal for the Advanced Course. Candidates must be *bona fide* students in regular attendance at the Ontario School of Art or the institution affiliated. A Bronze Medal is given for highest number of marks in Primary Grade B. A Bronze Medal is given to the student from a Mechanics' Institute who makes the highest marks in the same grade.

*Summer Sessions.*—Free Industrial Drawing Classes have been established for the benefit of High and Public School teachers during each summer vacation. The course consists of

Freehand Drawing from flat examples,
Practical Geometry,
Linear Perspective,
Model Drawing,
Blackboard Drawing from memory,
Twelve lessons each,

for Grade B; and of

Shading from flat examples, 20 lessons;
Industrial Design, 15 lessons;
Machine Drawing, 15 lessons;
Drawing from Dictation, 10 lessons.

*Affiliation.*—Any college or private school may, for the purpose of taking the Departmental Examination, and with the consent of the Department, be affiliated with the Ontario School of Art. Several schools and colleges have already availed themselves of this privilege.

*Local Art Schools.*—By an Act passed in 1885, the Education Department was empowered to make regulations for the organization and management of local Art Schools; to prescribe a Curriculum of Studies for such schools, and, on examination, award Certificates valid in any municipality in the Province.

## THE EDUCATIONAL MUSEUM.

In 1849 an Act was assented to, granting five hundred pounds per annum for the establishment and support of a School of Art and Design for Upper Canada. This fund was allowed to accumulate for several years, and, together with special grants, was expended in the purchase of a collection of objects of Art, which gradually increased so much in size that it became necessary to erect new school buildings and devote all the lecture rooms, etc., of the original Normal School building to the purposes of the museum.

The original plan of having a School of Art and Design was not carried out until 1882. In the meantime the museum was thrown open free to the public every day, except Sundays, and students from the city having art tastes have the privilege of copying from the paintings, statuary, etc. As an indirect aid to Art the museum has been very valuable, and the students of the Ontario School of Art have access to its examples for the purposes of study.

The museum is a source of attraction to visitors. It contains:—

1. Plaster casts of Egyptian, Assyrian, Babylonian, Persian, Grecian and Roman statuary, antiquities.
2. Architectural sculpture, different periods.
3. Antique sculpture, statues, busts, etc.
4. Modern sculpture, statues, busts, etc.
5. Medallions and medals.
6. Bas-reliefs,
7. Copies of paintings of Italian, Flemish, Dutch, German, French and Spanish Schools.
8. Photographs of prehistoric Egyptian, Assyrian, Cyprian, Grecian, Etruscan, Roman, and other antiquities; illustrations of decorative art of different ages; views of cities; national historical portraits; British National Gallery paintings, etc., etc.
9. Engravings; etchings; chromo lithographs, etc.
10. British American collection of maps, charts, portraits, etc.
11. Reproduction in fictile ivory.
12. Electrotype reproductions.
13. Curiosities and antiquities, various.

The museum also contains a large collection of philosophical apparatus suitable for schools and colleges. It is representative, on a small scale, of the South Kensington Museum; and duplicate copies of plaster casts, drawings, etc., are loaned to other Art Schools throughout the Province.

### 3. Ontario Agricultural College and Experimental Farm.

This Institution, established in 1874, is situated near the City of Guelph, in the centre of an extensive agricultural and noted stock-raising district. The Farm consists of 550 acres, about 400 of which are cleared. It is composed of almost every variety of soil, consequently it is well suited for the purpose of experimental farming.

*Objects.*—Its objects are: (1) To give a thorough mastery of the practice and theory of husbandry to young men of the Province engaged in, or intending to engage in, Agricultural or Horticultural pursuits; and (2) to conduct experiments tending to the solution of questions of material interest to the Agriculturists of the Province, and to publish the results from time to time.

*Matriculation.*—The subjects are as follows: Reading, Writing and Dictation, English Grammar, Arithmetic—to the end of Simple Proportion; the outlines of General Geography, and the Geography of Canada.

*Tuition Fees.*—Residents in Ontario, with one year's apprenticeship, $20 a year; without the apprenticeship, $30. Non-resident, with one year's apprenticeship, $50; without apprenticeship, $100 for the first year, and $50 for the second. The charge for board, etc., is two dollars and a half per week, washing extra.

*Labor.*—All regular students are required to work in the outside departments—farm, live stock, garden, carpenter shop, and experiments, during the afternoon of every alternate day; and for one hour in the morning in the live stock department. This labor is paid for at a rate per hour, fixed by the Farm Superintendent, and the payments are credited on board accounts.

## COURSE OF INSTRUCTION.

### I. Course of Study.

*First Year—Subjects:*

Agriculture.
Live Stock.
Inorganic Chemistry.
Organic Chemistry.
Veterinary Anatomy.
Veterinary Materia Medica.
Zoology.
Botany.
Geology.
English Literature.
English Composition.
Book-keeping.
Arithmetic.
Mensuration.

*Second Year—Subjects:*

Agriculture.
Live Stock.
Dairying.
Arboriculture.
Agricultural Chemistry.
Veterinary Pathology.
Veterinary Surgery and Practice.
Entomology.
Meteorology.
English Literature.
Political Economy.
Book-keeping.
Mechanics.
Levelling and Surveying.
Systematic and Economic Botany.

## DEPARTMENTS OF INSTRUCTION.

I. Agriculture; II. Natural Science; III. Veterinary Science; IV. English, and Political Economy; V. Mathematics and Book-keeping.

### II. Course of Apprenticeship.

In this Course there are five Departments, viz.:—1. The Farm Department; 2. The Live Stock; 3. The Horticultural; 4. The Mechanical; 5. The Experimental. The work is done by divisions, which work alternately in the afternoon and one hour in the morning with the live stock.

Special Classes.—A special class is organized in the fall for such students as wish to devote a few months to the study of live stock and veterinary science. The members of this class spend half of every alternate day and an hour every morning in working among the live stock, and the rest of the time in study. The work done by this class is not paid for. A special silver medal is awarded to the best second year student on reaching a certain standard.

Diplomas.—Diplomas admitting to the status of "Associate of the Ontario Agricultural College" are granted on certain conditions.

Medals.—Three medals are offered for competition among the students of the second year—the gold medal, the first silver medal, the second silver medal. The examinations for these medals are both written and practical.

# VI. SCHOOLS FOR SPECIAL CLASSES.

## I. Ontario Institution for the Deaf and Dumb.

In the year 1858, a Society was established in Toronto for the instruction of the Deaf and Dumb and of the Blind, the entire control being vested in a Superintendent under the direction of a Committee. The Course of Instruction, intellectual and mechanical, was under the guidance of a Master and Assistants, subject to the

Superintendent. The expenses were defrayed by private subscriptions, a small Government grant and grants from certain County Councils. At the end of the first year, there were 19 pupils in regular attendance. The first blind pupils were admitted in September, 1861.

In 1864 the Institution was removed to Hamilton, and placed under the supervision of a Board of Commissioners appointed by the Government. The instruction given to the blind was necessarily of a very elementary character, as there were no appliances for instructing them in industrial pursuits. The Institution was carried on until July, 1870, by Mr. J. B. McGann, the pioneer in the establishment of a school for the deaf and dumb.

In October, 1866, the Rev. Dr. Ryerson, Chief Superintendent of Education, was directed by the Government to make an educational tour in foreign countries, during which he was to collect information, etc., respecting schools for the deaf and dumb and the blind, as the Government contemplated establishing such schools in both Upper and Lower Canada, as an appropriation of $80,000 had been voted by Parliament in 1854, for the erection of schools for the educating conjointly of mutes and the blind.

Four years later, on the 20th of October, 1870, the Ontario Institution for the Education and Instruction of the Deaf and Dumb was opened at Belleville; the Principal, W. J. Palmer, Ph.D., and his staff of officers and teachers were installed, and during the first year 107 pupils were admitted, of which number 62 had not attended any school for the deaf and dumb, while 41 of the remaining 45 had attended Mr. McGann's school.

By Act of Parliament the Inspector of Prisons and Asylums has power to make such Rules and By-Laws as he may deem expedient for the government, discipline and management of the Institution, subject to the approval of the Lieutenant-Governor in Council.

The Institution is open to all deaf mutes from seven to twenty years of age, who are not deficient in intellect and are free from contagious disease. The period of instruction, except in special cases, is limited to seven years. No charge is made for Tuition and Instruction, but parents who are able to do so are charged $50 a year, while Non-Provincial pupils are admitted for $125 a year.

The course of instruction is both scholastic and industrial. In the former the work is, on the whole, analogous to that done in the Public Schools of the Province, due allowance being made for difference, not so much in the mental capacity of the pupils as in the difficulty of teaching the subjects. The modes of instruction employed are the Manual Alphabet, Signs, Writing, and Articulation or Visible Speech. In fact, the system may be termed the "combined system," and it has been found to be most practical and productive of useful results. The pupils are urged to use "articulation" instead of "signs," whenever it is possible to do so, and the greatest pains are taken to train them to express their thoughts in written words, accurately used and spelt. The yearly examination of the pupils is made by Dr. Carlyle, an experienced master from the Normal School. From the reports laid before Parliament it is pleasing to learn that the interests of these "children of silence" are so faithfully and earnestly ministered to. In the Industrial Department both classes are provided with instruction and work. The boys are instructed in cabinetmaking, carpentering, shoemaking and tailoring; while the girls are taught to sew, to make dresses, to do fancy work, and are trained in household duties.

Since the Institution was opened in 1870 not fewer than 700 have enjoyed its benefits.

## 2. Ontario Institution for the Education of the Blind.

The beginning of this Institution, which has now assumed so high a position, was extremely humble. In the year 1861, Dr. Beverley Morris, who was for a short time Superintendent of the "Society for the Instruction of the Deaf and Dumb and the Blind," which was established in 1858, received among the pupils four who were blind. Although the appliances for teaching were very meagre, substantial progress was made. As has been stated in the sketch of the "Institution for the Deaf and Dumb," the Institution was removed to Hamilton under Mr. J. B. McGann. The Institution in its present form, like the sister institution for the deaf and dumb in Belleville, was, in consequence of the Legislative Grant made in 1869, established in the city of Brantford, in the year 1872, for the education and training of the blind youths of the Province, between the ages of seven and twenty-one years, who are not disqualified through disease or mental incapacity. It is intended to be supplementary to the Public School System of the Province, and admits those whose sight is so defective or impaired as to prevent them from receiving education by the ordinary methods. It is not necessary, therefore, that a youth should be totally blind in order to be entitled to the benefits of the Institution.

### COURSE OF INSTRUCTION.

The pupil is taught Arithmetic, Grammar, Geography, Reading, Writing, and, at a more advanced stage, English Literature and History. He is instructed in the use and form of common objects, in Natural History and Physiology, and sometimes Popular Chemistry is also taught. In many of these subjects pupils attain a high degree of proficiency.

Reading is taught by the use of embossed type traced by the fingers; Writing with the aid of a grooved card, which acts as a guide to the hand; Geography by the agency of dissected maps; Natural History by handling models or stuffed specimens of birds, animals or fishes. A system known as the Point Print Cypher, written with the assistance of a stylus and a brass guide, is used for correspondence, for music writing, and for copying books and documents.

Concurrently with this course the pupil is, where his ability justifies it, introduced to the study of music, including lessons on either the Pianoforte, Organ or Violin, or on more than one of those instruments, if a special talent be exhibited. Where the voice is susceptible of successful cultivation, the pupil receives careful instruction in Vocal Music. Advanced music pupils are also instructed thoroughly in Harmony, Counterpoint and the Theory of Music. If a male pupil possesses a correct ear and other qualifications likely to fit him for the business of a pianoforte tuner, he enters the tuning class and receives a regular course of instruction in that branch of training. On graduating from the tuning class the pupil receives a complete outfit of tools valued at about thirty dollars.

With male pupils, whose circumstances require them to pursue an industrial calling, the willow shop, where chair and basket making are taught under a competent trades instructor, is the usual resource. In four or five sessions an intelligent youth may graduate as a competent workman, quite able to earn a comfortable living by his own industry. If his record is good, the willow shop graduate, on leaving, receives an outfit of tools, models and material worth from eighty to one hundred dollars.

Of the female pupils all are instructed in hand-sewing, hand-knitting, and the use, with all their respective attachments, of the sewing and knitting machine. In the sewing-room apt pupils readily qualify themselves for undertaking almost any ordinary description of needlework, and some for cutting out work. In the knitting branch, the knitting machine affords to many, after leaving the Institution, a means of providing their own income.

To compensate to some extent for the lack of robust exertion the pupils are drilled in calisthenic exercises, which have a very beneficial effect on both their health and deportment.

The pupils have access to a good library of embossed books, which are being always added to, and their annual prizes are usually in this form.

The religious and moral training of the pupils receive careful attention. They meet morning and evening for devotional purposes. On Sunday morning they attend, under guidance, their respective places of worship. In the afternoon religious services are held in the Institute.

## VII. INSTITUTIONS PARTLY AIDED BY GOVERNMENT.

### I. The Canadian Institute, Toronto.

The Canadian Institute, like many other societies of a similar character, dates its origin from a small beginning. A few individuals connected with the surveying and engineering professions formed the original Society, consisting of gentlemen engaged in these pursuits, in 1849; but it was not of very vigorous growth. New life, however, was infused by the granting of a Royal Charter, which decreed that the Director of the Geological Survey of Canada —afterwards Sir W. E. Logan—should be the first President. By virtue of this charter the hitherto strictly professional character of the Institute was changed to one of a general description, viz., promoting the physical sciences, encouraging and advancing the industrial arts and manufactures, the formation of a Provincial Museum, and facilitating the acquirement and the dissemination of knowledge connected with the surveying, engineering, and architectural professions. In 1852 the Institute began to issue a monthly paper, *The Canadian Journal*, the publication of which is still continued. In it are published the proceedings of the Society, the papers read before the members, and original communications, together with selected articles. In 1855 the Institute and the Toronto Athenæum united, and by this amalgamation the valuable library and collection of minerals belonging to the latter Society was transferred to the Institute. Another Society, "The Natural History," is on the eve of uniting with the Institute, and will form the biological branch thereof.

## 2. L'Institut Canadien Francais de la Cite d'Ottawa.

This purely literary Institution was founded by the leading French-Canadian residents in the city of Ottawa in the year 1852. What this body aims at is the union and the intellectual progress of its members and their advancement in literary pursuits. There are three classes of members—active, honorary, and corresponding. All active members are of French origin, and they must enjoy an indisputable reputation for honor. Honorary members are chosen from among dignitaries and persons who have materially helped the Society. Corresponding members are those who have contributed by their writings, lectures, etc. The present active membership is 322; honorary, 80; corresponding, 15. The Institute occupies a building of its own, which, together with the site, is valued at $23,500. A library of over 500 volumes, and a reading room containing 40 daily and weekly newspapers and periodicals, are valuable adjuncts. For many years gratuitous instruction was given in mineralogy and kindred subjects; Dramatic and Debating Clubs flourished, and the addition of an Art School has made the Institution pretty perfect. The public lectures are of a varied character.

## 3. Mechanics' Institutes.

By the Act of 1880, Mechanics' Institutes, which had been established as far back as the year 1830, were placed under the supervision of the Department of Education, having formerly been under the control of the Commissioner of Agriculture. The primary objects of the Institutes were to form a Library and Reading Room and to organize a system of instruction by means of Lectures and Classes. The officers consist of a President (who shall be *ex officio* a director), Secretary, Treasurer, and a Board of Directors of not fewer than five or more than nine (exclusive of the President), and such other officers as may be designated in the by-laws of the corporation.

*Conditions for Receiving the Government Grant.*—It is the duty of the Directors in order to be entitled to any portion of the appropriation made by the Legislative Assembly for Mechanics' Institutes :—

1. To see that such Institute is incorporated according to the provisions of this Act or some former Act; 2. To establish a Library containing books on Mechanics, Manufactures, Agriculture, Horticulture, Philosophy, Science, the Fine and Decorative Arts, History, Travels, Poetry, Fiction and Biography; or 3. To open a Reading Room; or 4. To organize Evening Classes for instruction in one or more of the three following courses, namely, an English Course, comprising the study of English and Canadian History, English Grammar and Composition; a Commercial Course, comprising the study of Book-keeping, Arithmetic and Writing; a Drawing Course, comprising the study of Freehand, Architectural and Mechanical Drawing; 5. To report before the 1st of May, in each year, to the Education Department, in such form as may be prescribed by the Minister of Education.

*Distribution of Government Grant.*—The appropriation annually made by the Legislative Assembly for Mechanics' Institutes is distributed, subject to the regulations of the Education Department, as follows :—

(*a*) Every Institute with a membership of fifty persons, and contributing in annual subscriptions the sum of twenty-five dollars, receives twenty-five dollars annually. (*b*) Every Institute with a membership of one hundred or over, and contributing in annual subscriptions not less than fifty dollars, receives fifty dollars annually. (*c*) In addition to the sums in the preceding sub-sections mentioned, every Institute receives for its Library the sum of one dollar for every dollar expended on books as provided by this Act, but so as not to exceed the sum of one hundred and fifty dollars for Library purposes ; for its Reading Room the sum of one dollar for every dollar expended for newspapers, magazines or other periodicals, but so as not to exceed the sum of fifty dollars for Reading Room purposes ; for Evening Classes the sum of three dollars for every pupil in any of the courses herein prescribed for classes of twenty-five pupils, and one dollar for each additional pupil, but so as not to exceed one hundred dollars in all for Evening Classes.

*Power of the Education Department.*—The Education Department has power in respect of the following matters :—

1. To make regulations for the management and inspection of Mechanics' Institutes, Libraries, Reading Rooms, and Evening Classes and Art Schools, and for the auditing of all accounts appertaining thereto. 2. For the payment of such inspection either by the Public School Inspector or otherwise, a sum not exceeding $10 for every Institute or Art School inspected.

STATISTICS OF THE MECHANICS' INSTITUTES IN ONTARIO FOR 1885.

| Number of Institutes reporting. | Number not reporting. | New Institutes. | Institutes with Elementary Classes. | Institutes with Drawing Classes. | Institutes whose Students received Certificates. | Finances. | | Number of Members. |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Receipts. | Expenditures. | |
| 122 | 19 | 6 | 19 | 43 | 35 | $117,600 39 | $117,931 62 | 16,259, being an average of 138 to each Institute. |

## 4. Ontario Society of Artists.

By an Act of Parliament passed in 1877, this Society, which had been established in 1872, for the encouragement and fostering of Original Art in the country, was empowered to make by-laws for the admission of members, for the conduct and management of the Canadian Art Union, and the promotion of any objects consistent with the study of Art.

*School of Art.*—A School of Art in connection with the Society was established in 1875 (see page 49). The Society managed this school until 1884, when it passed entirely under the control of the Education Department.

### OPERATIONS OF THE SOCIETY.

EXHIBITION.—There is an annual exhibition of the work done by the artists who are members of the Society. Besides the regular exhibition, the Society frequently has loan exhibitions of European and American artists.

LIFE CLASS.—Art students are admitted to study in this class, free of charge, upon showing sufficient ability by drawing from the cast.

## 5. Local Art Schools.

1. The London Art School.
2. The Ottawa Art School.
3. The Kingston Art School.
4. The Hamilton Art School.

These Schools, which are now affiliated with the Ontario School of Art, Toronto, have each of them a Board of Directors of its own, but the course of instruction is the same as that pursued in Toronto. In consequence of this affiliation the students enjoy the same privileges as the Toronto students, are eligible for certificates, and may compete for the medals.

In addition to the medals mentioned in the preceding paragraph, the Board of Arts and Manufactures, Toronto, has decided to give a special medal to each of the Art Schools in the Province for certain specific work. Three out of the four offered for competition have been awarded: One to Toronto, one to Kingston, one to Ottawa.

The result of the last examination is given in the following table:

| School. | When established. | Teaching Certificates. | | Proficiency Certificates. |
|---|---|---|---|---|
| | | Grade A. | Grade B. | |
| Ontario School of Art .......... | 1875 | 1 | 2 | 195 |
| The London Art School ........ | 1878 | 1 | 1 | 59 |
| The Ottawa Art School ........ | 1879 | .... | .... | 85 |
| The Kingston Art School ....... | 1884 | .... | 2 | 159 |
| The Hamilton Art School ........ | 1886 | .... | .... | .... |
| Other Institutions in affiliation .. | .... | .... | 28 | 1980 |

*Grants.*—Every Art School incorporated under the Act of 1886 or any other Act, and complying with the Regulations of the Education Department respecting the equipment, accommodation and teachers required for Art Schools, shall be entitled to receive out of any moneys appropriated by the Legislative Assembly for Art purposes a fixed grant of four hundred dollars, and such additional sums for proficiency in Art studies as may be determined by the regulations of the Education Department respecting final examinations.

## 6. The Entomological Society of Ontario.

In the year 1863, a number of students of Practical Entomology (under the Presidency of the late Dr. Croft, Professor of Chemistry in the University of Toronto) formed the Entomological Society of Canada. Their early years were at first published in the *Canadian Journal,* issued by the Canadian Institute. In 1868, however, the first number of the *Canadian Entomologist* was issued, under the editorship of the Rev. C. J. S. Bethune, M.A., the present Head Master of Trinity College School, Port Hope. The Council of the Arts and Agricultural Association granted the sum of $500 on condition that the paper be continued. A report on insects injurious or beneficial to agriculture, and a small cabinet of insects, were placed at the disposal of the Council. After the Confederation of the Provinces in 1867, the Society was incorporated, and a grant of $1000 dollars a year was placed at its disposal, on conditions similar to those given above.

In 1876 the Society made, at the Centennial Exhibition in Philadelphia, the most complete exhibit of North American insects ever brought together, and they received a Gold Medal on that account. In 1882 a similar collection of insects injurious to fishes, as well as those which serve as food for fishes, was sent to the International Fisheries Exhibition in London. The present "Indian and Colonial Exhibition" has a large representative collection.

### 7. Ottawa Literary and Scientific Society.

The Literary and Scientific Society of Ottawa was incorporated in 1869, which empowered the Mechanics' Institute and Athenæum (established in 1849) and the "Natural History Society" to unite under a new name. The former of these Societies was in possession of a good reading-room and library. It had also been in receipt of an annual grant of $300 from the Ontario Government. The Natural History Society had already done good work in the study of nature, and possessed a museum and library. The work of these two Societies—one somewhat popular in its nature, and the other more strictly scientific—has been continued in a certain measure by the new Society. It has maintained classes of instruction, as well as courses of lectures at different times by many of the foremost men in Canada. During the past two years, through the liberality of friends, the Society has been able to apply about $600 to the purchase of books. The number of volumes at present on the shelves is over 2,100. The library is much used by the members, and, as it consists mainly of high class works of literature and science, must be regarded as a very useful educational medium. The museum comprises some valuable collections, chiefly mineralogical, botanical and entomological. The number of members at present on the Society's book is over 350, and the annual subscription is fixed at the very low rate of $2.

### 8. The Hamilton Association.

This Association was established in 1857 and incorporated in 1883. Its objects are the formation of a library, museum and art gallery; the cultivation of literature, science and art, and the illustration of the natural history and physical characteristics of the country. It is composed of three classes of members—honorary, ordinary and corresponding members. With a view to afford fuller opportunities and facilities of meeting and working together, sections are established in seven different branches of science, with a a President and a Secretary for each. A "Journal and Proceedings of the Hamilton Association" is published yearly.

# VIII. UNIVERSITIES AND COLLEGES NOT UNDER PROVINCIAL CONTROL.

## *I. UNIVERSITIES.*

### I. Victoria University.

The existence of this University is due to the efforts of the Conference of what was formerly known as the Wesleyan Methodist Church. During the years 1828 and 1829 plans were devised for the establishment of an Academy for the superior education of both sexes. The town of Cobourg was selected as the site. The work of building was commenced in 1832, chiefly through the exertions of Rev. Egerton Ryerson. The buildings were completed in 1836, when "Upper Canada Academy" was formally opened, being the first Academy of Education established in Upper Canada by voluntary contributions. In October of this same year a Royal Charter of incorporation was obtained in England by Rev. Dr. Ryerson. In 1841 the Canadian Parliament passed an Act altering the constitution of the Academy and establishing it as a University under the title of "Victoria University at Cobourg." Thus Victoria has the honor of being the first institution incorporated by the Canadian Parliament with University powers. It was also the first institution in Canada for the higher education of both sexes; and the first degree in Arts was conferred by it in 1846. The College opened with the Faculty of Arts; in 1854 Medicine was added; in 1862 the Faculty of Law, and in 1872 that of Theology.

In 1874 the Charter granted by King William and all the Acts of Parliament relating to it were repealed, and the appointment of the Board was entrusted to the General Conference of the Methodist Church of Canada. In 1879 this Act was amended, and representation on the Senate was granted to registered Alumni. In 1883 an Act was passed altering the constitution of the College Board and providing for representatives of the graduates being placed upon it. In 1884, after the Union of the different Methodist bodies, the name of the College was changed to "Victoria University," the representation of Alumni was increased, the President of the University was constituted Chancellor, and a Vice-Chancellor was to be elected every two years by the graduates. Albert College was also affiliated with the University.

*Governing Body.*—The University is governed by a Board of Regents, composed of the General Superintendents of the Methodist Church, the Chancellor and the Vice-Chancellor, twenty-four members appointed by the General Conference, and seven members appointed by the graduates. This Board appoints the President, who is *ex-officio* Chancellor, and the Professors of the different Faculties. It is a body corporate with all the powers of management and administration of the University, except such as are vested in the Senate.

*The Senate.*—This body consists of the Board of Regents, the Professors of the various Faculties, eight representatives of the graduates, in addition to the representatives on the Board, and one or more representatives of each affiliated College, according to the terms of affiliation. This body confers degrees in the several Faculties, prescribes the course of studies and qualifications for degrees, and determines all matters relating to the work of education in the University.

*Convocation.*—Convocation consists of the Senate and registered Alumni. It meets in the month of May for the public conferring of degrees, the electing of the Vice-Chancellor (every two years) and the representatives on the Board and the Senate.

*Affiliated Institutions.*—Albert College, Belleville; the Wesleyan College, Stanstead, Province of Quebec; the Wesleyan Theological College, Montreal, P.Q.; the Toronto School of Medicine and the School of Medicine and Surgery, Montreal.

FACULTIES.—The Faculties are those of Arts, Science, Medicine, Law and Theology.

ARTS COURSE.—The Course of Study in the Faculty of Arts pursued in the College extends over four years, called respectively Freshman, Sophomore, Junior and Senior. It embraces the following departments: Classics, Mathematics, English History, Modern Languages (French and German), Oriental Languages (Hebrew, Chaldee and Syriac), Natural Science, Philosophy, Logic, and Civil Polity.

SCIENCE COURSE.—The Course of Study in the Scientific Department embraces the following subjects: Mathematics, Botany, History, English, French, German, Physics, Logic, Apologetics, Political Economy, Inorganic Chemistry, Biology, Mineralogy, Geology, Assaying, Philosophy, Civil Polity, Astronomy, Determinative Mineralogy, Ethics, and Natural Theology. (NOTE.—A special course of summer lectures is given.)

MEDICAL COURSE as prescribed by Toronto School of Medicine and the Ecole de Médecine et de Chirurgie, Montreal.

LAW COURSE extends to four years and embraces the usual subjects of such a course.

THEOLOGICAL COURSE.—The subjects in this Faculty comprise Apologetics, Systematic Theology, Biblical Theology of the Old Testament, Exegesis, Old and New Testaments, Biblical Theology of the New Testament, Homiletics and Pastoral Theology, Church Polity.

MEDALS.—Gold and silver medals are given at the end of the course to the best honor men who reach a certain standard in each of the following departments: Classics, Mathematics, English and Modern Languages, Natural Science, Philosophy, Logic and Civil Polity. The medals founded by His Royal Highness the Prince of Wales are awarded to the two competitors who obtain the highest standing at a final examination in subjects named from year to year. In order to be qualified as competitors, the candidates must, during their undergraduate course, have taken honors each year in a specific department.

SCHOLARSHIPS.—Several Districts in the various Conferences have established scholarships of the value of $25 each, some of which are open to competition at matriculation and others at graduation.

PRIZES.—In addition to these medals and scholarships, there are a number of prizes in books, founded by different friends of the University. They are awarded from year to year for the same subjects, which are clearly specified.

DEGREES.—The degrees granted in the different Faculties are as follows:—*Arts*—B.A., M.A.; *Science*—B.Sc., Ph.D.; *Law*—LL.B., LL.D.; *Medicine*—M.D., C.M.; *Theology*—B.D., D.D.

## STATISTICS OF THE UNIVERSITY OF VICTORIA COLLEGE, COBOURG, 1885.

| Name and Locality. | Date of Establishment or Incorporation. | Annual Income. | Sources of Income. | Amount of Endowment. | Capital invested in Buildings and Lands. | Number of Professors. | Number of Tutors or Lecturers. |
|---|---|---|---|---|---|---|---|
| VICTORIA UNIVERSITY, COBOURG. | 1836, as U. C. Academy, by Royal Charter. 1841, by Statute as a University. | $20,000. | Endowment, Fees, and Collections. | $200,000 | $70,000 | 10 | .... |

| Faculties. | Length of Course. | Number of Students in each Year of Course. | Number of Graduates. | Schools connected with Institution. |
|---|---|---|---|---|
| I. Arts.<br>II. Theology.<br>III. Medicine.<br>IV. Law.<br>V. Music.<br>Degrees granted in all these Faculties. | 4 Years. | First Year .................... 45<br>Second " .................... 40<br>Third " .................... 13<br>Fourth " .................... 24<br>Special Subjects .............. 47<br>Professional Students ........ 280<br>Total .................... 449 | Arts ........................ 463<br>Medicine .................... 1179<br>Law ........................ 88<br>Science .................... 10<br>Theology .................... 54<br>Music ........................ 2<br>Total .................. 1796 | 1. Albert College.<br>2. The Wesleyan College, Stanstead, P.Q.<br>3. Toronto School of Medicine.<br>4. Montreal School of Medicine and Surgery.<br>5. Wesleyan Theological College, Montreal. |

| Laboratories. | | | | Apparatus. | | Number of Volumes in Library. | Museum and its Nature. |
|---|---|---|---|---|---|---|---|
| Chemical. | Physical. | Mechanical. | Other. | Kind. | Value. | | |
| One. | One. | .... | Mineralogical. | 1. Chemical.<br>2. Physical.<br>3. Astronomical. | $4,000. | $5,000. | 1. Geological.<br>2. Mineralogical.<br>3. Archæological. |

## 2. Queen's University, Kingston.

This educational institution, situated in Kingston, was originally the College of the "Presbyterian Church of Canada, in connection with the Church of Scotland." The members of the Presbyterian Church in Upper Canada began in 1835 to agitate in favor of the establishment of a Theological Seminary for the training of young men for the ministry. As no institution for Arts training, open on equal terms to all the public, was as yet available in the Province, the Synod of the Presbyterian Church took definite steps in 1839 for the founding of such an institution. A Provincial Charter was obtained in 1840, incorporating the University of Kingston; but this Act was subsequently annulled by the Imperial authorities, and in lieu of it a Royal Charter was granted in 1841, conferring on the institution the name of "Queen's College." The new College building is of stone, and was erected within the last ten years, mainly through the energy of the present Principal, the Very Rev. G. M. Grant, D.D. It is fully equipped with laboratories, museums, and a well-stocked library. In addition to these, the Kingston Astronomical Observatory, which had been built in 1855 by private subscription, aided by the City Corporation, was in 1861 conveyed by deed to the College, on condition that the College give, every year, a course of not fewer than six popular lectures on astronomy, open to the public. This Observatory is one of those which are connected with the Magnetical Service of the Dominion—the head-quarters of which are at Toronto. The other is at Montreal.

*The Council.*—This body consists of the Chancellor, the Trustees, twelve ministers of the Presbyterian Church in Canada, and fifteen laymen in full communion; the Senate, *i.e.*, the Principal and all the Professors, and thirty-three members elected by the registered graduates.

*Trustees.*—At the time of the union between the different Presbyterian bodies of Canada, and of the formation of the "Presbyterian Church in Canada," Queen's University became, in 1874, by Act of Parliament, the College of that Church; the Board of Trustees was made self-perpetuating, instead of being appointed as heretofore by the Synod, and they were empowered to appoint a Vice-Principal to take the place and discharge the duties of the Principal in his absence.

*Convocation and Council.*—By this same Act Convocation was organized and a Council established, having power to pass by-laws for the registration of graduates, for the appointment of officers, and for the election of a Chancellor, who is elected by the Council if there is but one candidate; otherwise he is elected by the registered graduates and alumni.

*Senatus.*—The members of the Faculties of Theology and Arts form one Board, with the title "Senatus." This Board awards the scholarships and apportions the Bursary Fund.

*Faculty Boards.*—The Professors of each Faculty meet as a Board and administer the affairs of the Faculty.

*Affiliated Institutions.*—The Royal College of Physicians and Surgeons and the Women's Medical College, both situated in Kingston, are affiliated with this University. Before this latter was established, the Medical Faculty of Queen's College (its forerunner, or predecessor) was the first to admit women (equally with men students) to the medical lectures of the College.

FACULTIES.—When the College opened in 1842 there were but two Faculties—Arts and Theology—to which the teaching work was confined. In the year 1854 the Faculty of Medicine was added, which afterwards (1866) became a separate corporation under the name of the "Royal College of Physicians and Surgeons." The Faculty of Law was added in the year 1860.

COURSE OF STUDY.—*Arts*—Classics, Mathematics, Mental and Moral Philosophy, Political Economy, Chemistry, Natural Science, History, Rhetoric, English Literature and Modern Languages. *Medicine and Law*—The usual courses as generally prescribed. *Theology*—The Inspiration and Authority of the Scriptures, Systematic Theology, the Pastoral Office, Homiletics, Hebrew and Chaldee, Apologetics, Biblical Criticism, Church History.

DEGREES.—A complete curriculum of study in these four Faculties, covering a period of four years, leads to the usual degrees—in Arts, B.A. and M.A.; in Law, of LL.B.; in Medicine, of M.D.; and in Theology, of B.D. The degree of D.Sc. is conferred on Masters of two years' standing who shall have taken first-class honors in any two departments of the honor course—Literature, Philosophy, Mathematics and Science. The honorary degrees of D.D. and and LL.D. are given for literary, scientific or professional distinction.

SCHOLARSHIPS.—Of these there are two classes—in Arts and in Theology. In each class there are two kinds—matriculation and sessional examination scholarships; the former tenable during the first session, the latter during the following session.

BURSARIES.—Besides the scholarships—a few of which are close, *i.e.*, tenable only by students having in view the ministry of the Presbyterian Church—there are Bursaries, which are awarded to Divinity students who have not obtained scholarships.

PRIZES.—The University prizes are money prizes for literary articles, essays, etc.

MEDALS.—Gold and silver medals are also awarded to successful candidates after examination in various subjects—Classics, Physics, Mathematics, etc.

## STATISTICS OF QUEEN'S UNIVERSITY, KINGSTON, 1885.

| Name and Locality. | Date of Establishment or Incorporation. | Annual Income. | Source of Income. | | Amount of Endowment. | Capital invested in Buildings and Lands. | Number of Professors. |
|---|---|---|---|---|---|---|---|
| QUEEN'S UNIVERSITY, KINGSTON. | 1841, By Royal Charter. | $29,615. | 1. Interest on Endowment | $13,644 | $225,000. | $135,000. | 10 |
| | | | 2. Annual Subscriptions | 7,330 | | | |
| | | | 3. Fees | 3,843 | | | |
| | | | 4. Presbyterian Church | 2,298 | | | |
| | | | 5. Temporalities Board | 1,950 | | | |
| | | | 6. Dominion Government, for Observatory | 500 | | | |

| Number of Tutors or Lecturers. | Faculties. | Length of Course. | Number of Students in each Year of Course. | | Number of Graduates. | | Schools connected with Institution. |
|---|---|---|---|---|---|---|---|
| 14 | I. Arts | 4 years. | First Year | 90 | Arts | 380 | 1. Royal College of Physicians and Surgeons, Kingston. |
| | II. Theology | 3 " | Second " | 80 | Medicine | 385 | 2. Kingston Women's Medical College, Kingston. |
| | III. Medicine | 4 " | Third " | 74 | Law | 26 | |
| | IV. Law | 3 " | Fourth " | 67 | Science | 5 | |
| | | | Special Subjects | 43 | Theology | 51 | |
| | | | Total | 354 | Total | 847 | |

| Laboratories. | | | | Apparatus. | | Number of Volumes in Library. | Museum and its Nature. |
|---|---|---|---|---|---|---|---|
| Chemical. | Physical. | Mechanical. | Other. | Kind. | Value. | | |
| Two. | One. | One. | One, Natural History. | 1. Chemical.<br>2. Physical.<br>3. Natural History. | $7,500. | 15,000. | 1. Botanical Collection (very full).<br>2. Geological.<br>3. Mineralogical.<br>4. Zoological.<br>5. Archæological.<br>6. Numismatic.<br>7. Ethnological. |

## 3. University of Trinity College, Toronto.

The immediate cause of the founding of this College and University was the suppression, in 1849, of the Faculty of Divinity in King's College, now the University of Toronto. In consequence of this the Right Rev. J. Strachan, D.D., Bishop of Toronto, issued, in February, 1850, a pastoral appeal to members of the Church of England for funds to enable him to establish a Church University and College. In response to this pastoral liberal contributions were made in Canada, and additional aid was obtained from England by the venerable Bishop himself.

*Incorporation.*—By a Provincial Act the College was, in 1851, constituted a corporate body; the Corporation consisting of the Bishop of Toronto and the Bishops of the various Dioceses into which the original Diocese of Toronto was divided, the Trustees of the College and the College Council.

*Foundation and Inauguration.*—The foundation of the College was laid on April 30th, 1851, and on the 15th of January, 1852, the inauguration took place, just ten years after the establishment of the Diocesan Theological College at Cobourg, which now became merged in Trinity College.

*Royal Charter.*—On the 16th of July, 1852, the University was constituted by Royal Charter and was endowed with power to confer degrees in the several Arts and Faculties.

*Faculties.*—At the time of the inauguration, the Faculties of Arts Divinity, Medicine and Law were instituted with Professors and a course of study in each. That of Music was added subsequently. The College Lectures now embrace the first two only, provision being made for University Examinations in the other Faculties.

*Governing Body, or Corporation.*—This body is composed of the Bishops of the five dioceses: Toronto, Huron, Ontario, Niagara, and Algoma; the Trustees of the College, three in number, who are elected by the Corporation and the Council of the College. The four Bishops, of Toronto, Huron, Ontario, and Niagara, each nominate four members, and each affiliated Institution nominates one member. Fifteen members are elected, eight by the same registered members of Convocation as elect the Chancellor, and the other seven by the Corporation.

*Committees of Corporation.*—These Committees are (1) The Land and Finance Committee; (2) the Committee on the Curriculum; (3) the Committee of Discipline. These Committees advise the Corporation on the Studies of the College and the Curriculum of the University, etc. On the recommendation of the Board of Studies in each department, they fix, from time to time, the selected authors, subjects, etc.

*Boards of Study.*—Each Faculty—Divinity; Arts, under the Departments "Litteræ Humaniores" and "Mathematics and Physical Science;" Law; Medicine; Music—has a Board which advises with the Curriculum Committee.

*Convocation.*—This body consists of the Chancellor, the Provost, the Professors, all M.A.'s, and all graduates in Divinity, Law, and Medicine who, from the time of their admission to such degree, shall have paid annually the sum of five dollars for and towards the support and maintenance of the College. It meets twice a year; once for the granting of General Degrees and once for granting degrees in Medicine.

FELLOWSHIPS.—The Fellows are Graduates in Honors appointed and removed by the Corporation. They reside within the College, and teach in their specific department and assist in the maintenance of discipline within the College. No fellowship is tenable for a longer period than five years, but any fellow may be re-elected.

DEGREES.—*Arts*—In the Faculty of Arts, the Course of Study, as in the English Universities, extends over three years. University Examiners are appointed annually in the various departments of the different Faculties. Divinity and Classics, Latin and Greek, are compulsory subjects in each year. For women, who are now admitted to the various examinations and degrees in Arts, Music, and Medicine, alternative examinations have been provided in Arts, in which German or Italian may be substituted for Greek, and Harmony for Mathematics. *Divinity and Music*—The degrees of B.D. and D.D., as also those of Mus. Bac. and Mus. Doc., are conferred on Candidates after having passed a series of examinations in each subject. The degree of Licentiate in Theology is also conferred. *Law*—The degrees conferred in this Faculty are B.C.L., and D.C.L. By Statute this latter degree is the only Honorary Degree conferred by the University. *Medicine*—In this Faculty the degrees are M.B., M.D., and C.M. Candidates are required to have attended four years' Medical Lectures and Hospital Clinics, and to have passed two University Examinations and one Examination at a Medical School.

SCHOLARSHIPS.—Three Scholarships, of the value of $200, $140 and $100 respectively, are awarded for general proficiency at matriculation. At the end of the first year, two Scholarships, each of the value of $160, are given for Honors in Classics and Mathematics respectively, and three of $50 each for (1) Divinity and Hebrew; (2) Physical and Natural Science; (3) French and German.

A Bishop Strachan Jubilee Scholarship (founded to commemorate fifty years of ministerial labor) is awarded to the most deserving Bachelor of the year who intends to be a candidate for Holy Orders. Annual value $160, tenable for two years. There are also an Organist Scholarship, and a Cooper Exhibition open for competition.

PRIZES AND MEDALS.—Prizes in books are awarded to the Bachelors standing highest in Classical and Mathematical Honors in the Arts Course and for special subjects in the Theological Course. The Medals are the Governor-General's Silver Medal; a Gold and a Silver Medal in Law; a Gold and a Silver Medal in Medicine.

EXAMINATION CENTRES.—Besides the Examination in Music at Hellmuth Ladies' College, Examinations in the Faculty of Music are conducted in London, England, and in the Faculty of Divinity, in Melbourne, Australia, on the same papers and at the same time as the Candidates who present themselves in Toronto.

## STATISTICS OF THE UNIVERSITY OF TRINITY COLLEGE, TORONTO, 1885.

| Name and Locality. | Date of Establishment or Incorporation. | Annual Income. | Sources of Income. | Amount of Endowment. | Capital invested in Buildings and Lands. | Number of Professors. |
|---|---|---|---|---|---|---|
| UNIVERSITY OF TRINITY COLLEGE, TORONTO. | 1851, as a College.<br>1852, by Royal Charter, as a University. | $26,400. | 1. Endowments .......................... $16,500<br>2. Students' Fees for Residence and Tuition 7,500<br>3. Fees for Examinations and Degrees ..... 2,400 | $300,000, in Lands and Securities. | Buildings. $150,000<br>Lands.... 200,000<br>$350,000 | 6 |

| Number of Tutors or Lecturers. | Faculties. | Length of Course. | Number of Students in each Year of Course. | Number of Graduates. | Schools Connected with Institution. |
|---|---|---|---|---|---|
| 5 | I. Arts ..............<br>II. Theology.........<br>III. Medicine<br>IV. Law<br>V. Music<br>} Degrees granted in all these Faculties. | 3 Years.<br>2 " | Arts— Men. Women.<br>First Year .............. 15 8<br>Second " .............. 11<br>Third " .............. 5<br>— 39<br>Theology—<br>First Year .............. 2<br>Second " .............. 8<br>— 10<br>Law—<br>Second Year ........... 13<br>Third " ........... 16<br>— 29<br>Medicine—<br>Second Year ........... 45<br>Third " ........... 33<br>Fourth " ........... 35<br>—113<br>Music—<br>Second Year ........... 48<br>Third " ........... 3<br>— 51<br>Total of Undergraduates .... 242 | Arts ...................... 290<br>Medicine ................. 403<br>Law ...................... 19<br>Divinity .................. 14<br>Music ..................... 1<br>Licentiates in Theology ... 6<br>Total number of Gradtuates 733 | 1. Trinity Medical School, Toronto.<br>2. Women's Medical College, Toronto.<br>3. Trinity College School, Port Hope.<br>4. Bishop Strachan School for Girls, Toronto.<br>5. Hellmuth Ladies' College, London, a centre for musical examinations. |

| Laboratories. | | | | Apparatus. | | Number of Volumes in Library. | Museum and its Nature. |
|---|---|---|---|---|---|---|---|
| Chemical. | Physical. | Mechanical. | Other. | Kind. | Value. | | |
| One. | One. | .... | .... | 1. Electrical.<br>2. Chemical and General.<br>3. Physical. | $2,500. | 7,500. | Permanent Museum to be erected. The collection is at present housed in the College buildings. The collection embraces the following specimens:—<br>1. Zoological (chiefly Canadian).<br>2. Mineralogical.<br>3. Geological. |

## 4. The College of Ottawa.

This College, conducted by the Oblate Fathers of Mary Immaculate, was established in the year 1848, by the Right Rev. Bishop J. E. Guigues, O.M.I., D.D., under the name of College of Bytown. It was then entrusted to the care of the Very Rev. Father Tabaret, O.M.I., D.D. (recently deceased). In the year 1866 the name was changed to the "College of Ottawa," and university powers were conferred. Besides the usual Arts degrees, the College is empowered to confer the degrees of Bachelor and Doctor in Science and Music, together with the degrees of Civil Engineering, Mining Engineering, and Mechanical Engineering.

Courses of Study.—The programme of studies embraces four distinct courses :

I. The Commercial Course. II. The Classical Course. III. The Scientific Course. IV. Course of Civil Engineering.

Appliances.—Two Laboratories, well arranged and equipped—Chemical and Physical—contribute materially to the successful prosecution of their studies and to investigations by the students.

Examinations.—The Examinations in this Institution differ somewhat from those of kindred establishments, as the *Matriculation* Examination takes place at the end of the third year of the Classical Course ; the *Intermediate*, at the end of the fifth ; the *Final*, at the end of the seventh.

Prizes and Medals.—In addition to First and Second Prizes in the various subjects of the different courses, ten Silver Medals are annually awarded.

Degrees.—The degrees conferred by this College, under its Act of Incorporation as a University, are Bachelor of Literature (B.L.), Bachelor of Science (B.Sc.), Bachelor of Arts (B.A.), and Master of Arts (M.A.). The degree of B.A. is the highest of the three baccalaureates, and includes the two others. The degree of M.A. is conferred two years after that of B.A., when the President is satisfied of the qualification of the candidate for that degree.

## STATISTICS OF THE COLLEGE (UNIVERSITY) OF OTTAWA, 1885.

| Name and Locality. | Date of Establishment or Incorporation. | Annual Income. | Sources of Income. | Amount of Endowment. | Capital invested in Buildings and Lands. | Number of Professors and Lecturers. |
|---|---|---|---|---|---|---|
| **COLLEGE OF OTTAWA, OTTAWA.** | Established in 1848, and granted University powers in 1866. | $23,235. | 1. Board and Tuition of Students.......... $22,785<br>2. House Rent.......................... 450<br>$23,235 | $15,000. | $194,000 | 22 |

| Departments of Study. | Length of Course. | Number of Students in each Year of Course. | | Number of Graduates. | | Schools in connection with Institution. |
|---|---|---|---|---|---|---|
| 1. Commercial .................... | 4 Years. | Commercial .................... | 300 | In Arts .................... | 37 | ............ |
| 2. Collegiate and Classical Course .... | 7 " | Classical .................... | 170 | In Literature .................... | 12 | |
| 3. Scientific Course .............. | 3 " | Theological.................... | 30 | | | |
| 4. Civil Engineering . .............. | 4 " | | | | | |
| 5 School of Theology............... | .... | | | | | |

| Laboratories. | | | | Apparatus. | | Number of Volumes in Library. | Museum and its Nature. |
|---|---|---|---|---|---|---|---|
| Chemical. | Physical. | Mechanical. | Other. | Kind. | Value. | | |
| One. | One. | .... | .... | Philosophical. | $3,000. | 8,000. | 1. Zoological.<br>2. Geological. |

Ministry of Education, Ontario
Historical Collection

### 5. The Western University, London.

This Institution, in connection with the Church of England in Canada, was incorporated in 1878, with power to Huron College to affiliate with it. The affiliation between the College and the University took place in 1881, and the University was inaugurated in the month of October of that year. The object of its establishment was, as a Church of England Institution in the Diocese of Huron, to obtain the same power of conferring Degrees in Divinity, Arts, Medicine, and Law as was possessed by the sister University of Trinity College; also, that a liberal education in Arts, Science, and Literature might be extended to that extensive portion of the Province of which London is the geographical centre. Huron College was first opened in 1863.

Faculties.—Besides that of Divinity—Huron College being the Divinity School—a Medical Faculty has been connected with the University ever since its inauguration, the Lectures being delivered in the University Buildings. A Law School was established at London, in September, 1885, but is not affiliated.

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## *II. THEOLOGICAL COLLEGES.*

### I. Knox College, Toronto.

In 1844, shortly after the disruption took place in the Established Church of Scotland and had spread to Canada, arrangements were made for the training of young men for the ministry of the Presbyterian Church of Canada. In 1846 the Institution which had been established for that purpose, was put on a more permanent basis, and the course of study extended over six years; three being devoted to general studies and three to Theology. In 1885, it was incorporated as "Knox College." In 1875, the year of the Union between the "Presbyterian Church of Canada" and the "Canada Presbyterian Church," it was agreed that the United Church should not be required to elect Trustees for an Arts Department in either Queen's Univerity or Knox College. In consequence of this arrangement, the Board of Management of Knox College is appointed annually by the General Assembly, while the Board of Trustees of Queen's College is a self-perpetuating body.

Government.—The Senate is composed of the Professors and Lecturers, and thirteen other members (ten clerical and three lay) appointed by the General Assembly. The Board of Management have charge of the finances.

Candidates, before entering upon the Theological Course, must present a Presbyterial Certificate, together with evidence of having obtained the degree of B.A. at the University of Toronto, or at McGill College, Montreal, or at Queen's University, or at some other University recognized by the Senate. Failing this, they must present a certificate of having pursued a literary course, and passed satisfactorily the necessary examination therewith; they must also undergo an elementary examination in Hebrew.

Course.—The Theological Course extends over three Sessions of six months each, the different departments being Exegetics, Biblical Criticism, Apologetics, Church History, Systematic Theology, Homiletics. A general certificate is given to successful students, that they may be taken by Presbyteries on preliminary trial for license.

Diploma.—A Diploma from the College is given to students. The Senate is also empowered to grant degrees in Divinity.

Scholarships.—A number of Scholarships are offered for competition among such University undergraduates as intend prosecuting their ministerial studies in the College.

## 2. Huron College.

*(See Western University.)*

## 3. Wycliffe College.

This College (incorporated under the name of the Protestant Episcopal Divinity School) is the Theological School for the Evangelical portion of the members of the Church of England in Canada. Its "work and methods are based upon two distinctive positions: one, more external—affiliation with the Provincial University; the other, internal—distinctive evangelical teaching."

By the affiliation of the College with the Toronto University, its students may take a complete University Course, or they can receive instruction in Philosophy and Mental Science, History, Languages, and other departments. By a recent statute it is enacted that subjects taught in this and other Theological Colleges, viz., Biblical Greek, Biblical Literature, Church History and Apologetics, are allowed as options in the University of Toronto in the third and fourth years. Regular students of the College are (*a*) Graduates in Arts of some recognized university; or (*b*) matriculated students of the University of Toronto. Those students who are not graduates are required to pass the Matriculation Examination of the University of Toronto. On leaving the College they will receive a certificate of the lectures they have attended and the work they have done. Prizes of books are given in the different departments. Bursaries of the value of $120 each are available, tenable for one year. They are renewable at the discretion of the Council.

Mission Society.—In connection with the College there is a "Students' Mission Society," having for its object the opening up of new Missions and keeping open old ones which are unable to maintain a resident clergyman.

## 4. McMaster Hall, or Baptist College, Toronto.

This College was founded in order to increase the number and efficiency of the Baptist ministry in the Dominion of Canada. In 1883 it became the Theological Seminary of the whole Dominion of Canada, the Theological departments of the Woodstock College, Prairie College, Manitoba, and of Acadia College, Nova Scotia, having, by vote of Conventions, been transferred to Toronto.

The Baptist body is mainly indebted to the liberality of the Hon. Senator W. McMaster for the very fine building in which the work is carried on, and for the endowment of all the Chairs of Instruction.

Affiliation with University of Toronto.—In July, 1885, the College affiliated with the University of Toronto. As a result of this affiliation certain branches taught in the McMaster Hall, viz., New Testament Greek, Church History and Apolegetics, may be substituted for certain other studies in the third and fourth years of the University Course.

Courses of Study.—Three distinct Courses of Instruction have been organized: (i.) A course of three years for University Graduates; (ii.) a course of four years for non-graduates who are prepared to take Hebrew and Greek; and (iii.) a course of four years for English students.

Diplomas.—Diplomas of Graduation in the Course are granted, on examination, to those students who have successfully completed the studies of any one of the courses of the College. Graduates in Arts who have completed the Theological Course may, on examination in prescribed subjects, receive the degree of Bachelor of Divinity. They may also obtain the degree of Doctor of Divinity.

Societies.—"The Fyfe Missionary Society," designed to foster the missionary spirit, and "The McMaster Hall Theological Society," for the discussion of current theological and philosophical questions.

## 5. St. Michael's College, Toronto.

This College was established in 1852, by the Basilian Fathers from Annonay, France, at the request and under the patronage of the Most Rev. Dr. Charbonnel, Roman Catholic Bishop of Toronto. It was incorporated in 1855. In 1861 the College was affiliated with the University of Toronto, on a basis similar to that of the affiliation of the Roman Catholic Colleges of England and Ireland with the University of London. The students are considered as matriculated upon passing the University Examination. At the end of the first and the third year, certificates from the College are accepted in lieu of the University Examinations. At the end of the second and the fourth year, the Examinations are passed before the University Examiners. Throughout the course, all the Lectures in Mental and Moral Science, Civil Polity and History are given at St. Michael's College.

The Classical Course.—Besides certain English branches, this course embraces the Greek and Latin languages, Belles-Lettres, History, Mathematics and Natural Sciences; German optional. This course extends over five years.

Higher Course.—A further course, covering two years, embraces Mental and Moral Philosophy, Natural Theology, Natural Philosophy and Inorganic Chemistry. Special lectures are delivered on Mental and Moral Science and History, as prescribed by the University of Toronto.

Theological Course.—In addition to these courses of study, there is a Theological Course, in which candidates for the ministry are in part prepared for their work, the course being completed at the "Seminary" in Montreal, Province of Quebec.

Societies.—Besides two religious Societies, or Sodalities, there is a Literary Association—"The St. Michael's Society" and "The St. Charles Literary Society."

## 6. Assumption College.

This College, situated at Sandwich, was established in 1856 by the Jesuit Fathers. In the year 1870 it was transferred, at the request of the Right Rev. Bishop Walsh, of London, to the Basilian Fathers, who conduct St. Michael's College in Toronto. In consequence of this arrangement, the courses of study in the two Colleges are almost identical.

## STATISTICS OF THEOLOGICAL COLLEGES IN ONTARIO, 1885.

| Name and Date of Incorporation. | Annual Income. | Amount of Endowment. | Capital invested in Buildings, etc. | Teaching Staff. | Departments of Study. | Length of Course. | Number of Students. | Number of Graduates. | Laboratories. | Museums. | Apparatus and Value. | Volumes in Library. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I. KNOX—1845 ....... ....<br>Presbyterian. | $15,000 | $180,000 | $120,000 | 6 | 1. Theology ...........<br>2. Classics .............. | 3 Years. | 70 | 391 | ........ | Geological ....<br>Archæological. | ........ | 11,000 |
| II. ST. MICHAEL'S COLLEGE..<br>1855. Roman Catholic. | ...... | ...... | $175,000 | 9 | 1. Theology ...........<br>2. Philosophy ...........<br>3. Classical ..............<br>4. Commercial .......... | 3 Years. | 120 | .. | ........ | Chemical ......<br>Physical ...... | ........ | 1,500 |
| III. HURON—1863 ..........<br>Church of England. | $30,000 | $40,000 | $30,000 | 1 | 1. Theology ...........<br>2. Classics ..............<br>3. Mathematics .......... | ........ | 5 | 52 | ........ | ........ | ........ | 4,000 |
| IV. WYCLIFFE—1879 ........<br>Church of England. | $8,000 | $63,000 | $54,000 | 6 | Theology ................ | 4 Years. | 25 | 23 | ........ | ........ | ........ | 4,000 |
| V. TORONTO BAPTIST COLLEGE—1880. | ...... | ...... | $85,000 | 7 | Theology ....... ........ | . ...... | 60 | 21 | ........ | ........ | ........ | 7,250 |

## *III. CLASSICAL AND LITERARY COLLEGES.*

### 1. Albert College, Belleville.

*(See also Alexandra College.)*

This Institution, which was founded in 1854 by the General Conference of the Methodist Episcopal Church, for the purpose of the higher education of the youth of that denomination, was incorporated in 1857, under the name of "Belleville Seminary." In 1866, by Act of Parliament, the name was changed to Albert College, and a Senate created with power to confer degrees in Arts. When the different Methodist bodies united in 1884, this College, without University powers, was retained and adopted by the General Conference as a Church School, and affiliated to Victoria University. The College, as now constituted, has an ample teaching staff for imparting to ladies and gentlemen instruction in the advanced branches of a liberal education. The principle of co-education is here acted upon.

CURRICULUM.—The curriculum comprises eight distinct courses: (1) Collegiate Course of three years, embodying elective undergraduate studies; (2) Junior and Senior Matriculation in the different Arts and Faculties of Victoria University; (3) Teachers' Course to prepare students for the literary examination for the different grades of teachers' certificates; (4) an Agricultural Course, covering two years; (5) Musical Course; (6) a Commercial or Business College course; (7) the Fine Arts Course (the course of study is that prescribed by the Ontario School of Art, with which the College is in affiliation, so that the prizes offered by that School are open for competition to students of the College.)

ADJUNCTS.—The College is furnished with a library, a museum and a reading-room. The Societies connected with the College number four: the Alumni Society, the Philomathian Society (for improvement in rhetoric and elocution), the Polymnian Society (composed of the ladies of Alexandra College), and the Y. M. C. A.

PRIZES.—The College Senate offers annually for competition a number of prizes, which has been increased by friends of the College, who present prizes for certain subjects or in certain departments.

### 2. Woodstock College.

This College, formerly "The Canadian Literary Institute," was founded in 1857 by the Baptists, and has been maintained principally by them. Before the establishment of McMaster Hall, Toronto, this College was the Baptist Theological School, and is now recognized as the College for the literary preparation of candidates for the ministry. There are three separate structures: the main building occupied by men students; another is occupied by the ladies, under the care of a Lady Principal; the third is the commercial building. The principle of co-education of the sexes is here fully illustrated.

CURRICULUM.—The curriculum is comprehensive, embracing not fewer than six different courses besides that pursued in the Commercial College.

Societies.—In connection with the College there are several Societies. These are: The Philomathic, a literary Society, the exercises of which are debates, essays, etc.; the Judson Missionary Society; the Excelsior Society, and the Gleaner Society, the latter composed exclusively of ladies. Each of the two latter Societies has a library of its own. There is also an Association of the Alumni and Alumnæ. Two reading-rooms, well supplied, complete the College equipment. Prizes are given in the various subjects taught.

## 3. Trinity College School.

This School, though bearing the same name as the University of Trinity College, is not in any way under its control. It was opened May 1st, 1865, in the village of Weston, near Toronto. During the year 1868 it was removed to the town of Port Hope, on Lake Ontario. The enlargement and efficient equipment of the School has been effected under the direction and management of the present Head Master, the Rev. C. J. S. Bethune, M.A., D.C.L., who has filled the post since 1870.

Corporation.—An Act passed in 1871 constituted the School a corporate body, consisting of the Bishop of Toronto, the Chancellor, the Provost and Professors of Arts of Trinity College, the Head Master of the School, and other persons.

Course of Study.—Pupils are prepared for the Matriculation Examination of the Universities, and the Entrance Examinations of the Law Society and the different Medical Schools of the Province, the Royal Military College, Kingston, etc. Instruction can be given, if necessary, in Telegraphy and Shorthand Writing.

Discipline.—The discipline and general management of the School are based upon the English public school system.

Exhibitions, Bursaries, etc.—The following Exhibitions are in the gift of the School: Two of $50 each, and one of $25. These are awarded annually. The Corporation also offers Twenty Bursaries of the annual value of $120 each. The Exhibitions and the Bursaries are for the benefit of the sons of the clergy of Ontario. A scholarship of the annual value of $60 has been founded in memory of the late Rev. F. A. Bethune, B.A., once an assistant master in the school. It is awarded to the head boy in the Fifth Form. In addition to the Governor-General's medal for Mathematics, the Chancellor's prize for General Proficiency, and the Provost's for Divinity, a number of prizes are awarded for specific subjects.

## STATISTICS OF CLASSICAL AND LITERARY COLLEGES, 1885.

| Name and Date of Incorporation. | Annual Income. | Amount of Endowment. | Capital invested in Buildings, etc. | Teaching Staff. | Departments of Study. | Length of Course. | Number of Students. | Number of Graduates. | Laboratories. | Museums. | Apparatus and Value. | Volumes in Library. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBERT COLLEGE ........... | $9,000 | $55,000 | $35,000 | 11 | 1. Collegiate ........... | 3 Years. | 175 | 172 | Chemical ..... | Mineralogical. | Chemical, $400. | 2,300 |
| 1857—Belleville. | | | | | 2. Music ................ | 3 " | | | | Natural History | | |
| | | | | | 3. Fine Arts ........... | Varies. | | | | Casts of Antediluvian Animals. | | |
| | | | | | 4. Commercial .......... | " | | | | | | |
| | | | | | 5. Agriculture .......... | 2 Years. | | | | | | |
| WOODSTOCK COLLEGE ........ | $10,000 | $41,000 | $75,000 | 10 | 1. Collegiate ........... | 4 " | 195 | .... | ........ | Nucleus of one. | 1. Physical and Chemical, $500. | 3,500 |
| 1857—Woodstock. | | | | | 2. Commercial .......... | Indefinite. | | | | | | |
| | | | | | 3. Music ................ | 3 Years. | | | | | 2. Astronomical Observatory, with Instruments, $4,000. | |
| | | | | | 4. Fine Arts ........... | 3 " | | | | | | |
| | | | | | 5. Ladies' Regular Course | 3 " | | | | | | |
| | | | | | 6. " Special " | 1 " | | | | | | |
| | | | | | 7. " Mixed " | | | | | | | |
| TRINITY COLLEGE SCHOOL .... | $40,000 | ...... | $90,000 | 10 | 1. Classical............. | 6 Years. | 135 | 901 | ........ | Collection of Canadian Fishes, Fossils, Indian Antiquities. | Maps, Globes, etc., $250. | 950 |
| 1872—Port Hope. | | | | | 2. Commercial .......... | | | | | | | |

## *IV. LADIES' COLLEGES.*

### 1. Alexandra College, Belleville.

A portion of the Albert College building is reserved for lady students who reside therein, under the supervision of a Preceptress, but attend the same lectures and receive instruction in the same classes as the students of Albert College. Their studies lead up to diplomas—Mistress in the Liberal Arts, M.L.A.; and Mistress in Modern Literature, M.M.L.

### 2. Alma College, St. Thomas.

This College, in connection with the Methodist Church, is chartered by a Provincial Act passed in 1877.

COURSES OF STUDY.—Three-year courses have been laid down in Literature, Music and Fine Arts. In addition to these, there is a school of Fancy Work, in which instruction is given in needle-work, wax-work, leather-work, etc., and home decorative art. The Board have also established a Commercial Department, as well as a school in Telegraphy, Phonography and Type-writing. A Department of Domestic Economy has been organized, with a course of experimental lessons in Cookery extending through the year, and a special course of practical lessons in the month of December. The Fine Arts Department is in affiliation with the Ontario School of Art, and more than one hundred students from this College have already received certificates from that School.

DIPLOMAS.—The course of study in each of the departments is very complete, and students completing the prescribed course are entitled, on examination, to receive one or other of the degrees M.L.A. or M.E.L.

ADJUNCTS.—A museum of geological, botanical and miscellaneous specimens, a gallery of fine arts, a chemical laboratory, and a library of fair proportions are among the adjuncts to the College.

NO PRIZES.—One special feature of this College is the entire absence of medals, prizes, etc., as incentives to exertion on the part of the students.

SOCIETIES.—The students have organized among themselves a Home and Foreign Mission Society, with the special and the general object of such organizations.

### 3. Bishop Strachan School (Wykeham Hall), Toronto.

This College, for the higher education of young ladies, which was founded under the auspices of the right reverend prelate whose name it bears, was established in 1867 and incorporated in 1868. It is situated in the City of Toronto, near the Queen's Park.

OBJECT.—Its object is the practical training and instruction of young ladies in the various branches of a liberal education, including Christian doctrine as contained in the Bible and the Book of Common Prayer.

GOVERNING BODY.—The Right Rev. the Bishop of Toronto and a Council of Clergy and Laity. The scholastic management is in the hands of the Lady Principal.

STUDIES.—Holy Scripture, Liturgy and Catechism; Reading and Elocution; Writing, Orthography, Grammar, Arithmetic, Composition; Ancient, Mediæval, Modern and Church History; Geography, English Literature, Latin, French, German, Italian, Drawing, Algebra, Euclid, Elementary Science, Class-singing, Calisthenics, Needlework. *Extras*—Music; Art Needlework; Harmony; Painting.

STAFF.—The Lady Principal is assisted by an efficient staff of instruction, seventeen in number, seven of whom are resident. Every arrangement is made for competent teaching in every department, and for the due supervision and moral culture of the pupils, as well as for their health and comfort. The staff includes ladies who have distinguished themselves at the University and the Provincial Teachers' Examinations, and who have had the advantage of experience and professional training. The full course of study is intended to occupy at least six, and in most cases seven years, the Fifth or Lower Senior Class work requiring two years.

EXAMINERS.—The examiners are selected from University graduates, and there is a University Department, in which candidates are prepared for the examinations in the Trinity College Course of Study for Women, or for Matriculation at the University of Toronto. Several pupils have already matriculated at both universities. Opportunities are thus given for higher culture in the Languages, in English Literature and Composition, Elocution, Science, the Mathematics, and in Art.

NOTE.—Such of the pupils as have completed their course of study at Wykeham Hall, but may desire to remain there to perfect themselves in any special branches, or to qualify themselves as Teachers, can do so on the same terms as members of the Senior Classes, subject in every respect to the discipline of the school.

MEDALS, PRIZES, &c.—Medals are given for General Proficiency in the Lower and Upper Senior Class; a Silver Cross in the Upper Intermediate, and valuable prizes in books in all the subjects of study, while those who merit it receive Honorable Mention.

## 4. Young Ladies' College, Brantford.

This College, established in 1874, is in connection with the Presbyterian Church in Canada. It is situated in the City of Brantford, on the Grand River, in a fertile and beautiful part of the country. The College is under the management of a Board comprising Visitor and Honorary Director (the Moderator of the General Assembly of the Presbyterian Church in Canada); two Official Visitors (appointed by General Assembly); an Advisory Council of three Clergymen, and a Board of nine Directors.

DEPARTMENTS.—I. The Preparatory Department, and II. The Collegiate Department. The time spent in the former depends upon the maturity and application of the student; the latter extends over three years. In the middle and senior years the subjects are arranged to meet the requirements of those who desire to prepare for the Departmental Examinations for Teachers' Certificates. In the Departments of Modern Languages, Literature and History, there is conformity to the University subjects, in order to prepare for the Local Examinations for women held annually in the College, in accordance with the University regulations.

SUBJECTS OF STUDY.—English; Mathematics; History and Geography; French; Latin; German; Science; Philosophy and Logic.

SPECIAL COURSES.—The subjects are selected from the Departments of Modern Languages and History of the first and second years of Toronto University. Students are permitted to take select studies or special studies in Literature, Arts or Music.

DIPLOMAS AND CERTIFICATES.—Diplomas are awarded to those students who pass satisfactory examinations, on the completion of the entire course. Every candidate who has passed the University Examination in one or more groups, and has passed in the Honor subjects of the group, is entitled to a CERTIFICATE OF HER STANDING.

*School of Art.*—A full course of instruction in the various Departments covers three years, and entitles those who show proficiency in the Art to a Certificate in Art.

*School of Music.*—Two courses: Instrumental and Vocal. The instruction given embraces all the branches essential to a musical education.

PRIZES.—In addition to the Diplomas and Certificates, Medals and Prizes in Books are given in all the Departments.

## 5. Hellmuth Ladies' College, London.

This College was founded in the year 1869, by the Right Rev. Isaac Hellmuth, D.D., D.C.L., Bishop of Huron, with the object of providing a thorough, liberal and useful education for young ladies. The buildings are well situated in an airy location; in large grounds, comprising 150 acres; and in the midst of picturesque scenery, on the banks of the River Thames, within a mile of the City of London. The Discipline of the College, its Domestic, Social and Educational Departments, are under the supervision of the Rev. the Principal and his wife. A thorough course in French, German, Italian, Latin and Greek, and in the English Branches, is afforded. A course of lessons in Practical Cookery is given in each year.

*Religious Training.*—The study of the Holy Scriptures and definite religious teaching occupy an important place in the education imparted. Divine Service is held in St. Anne Chapel, situated in the College Grounds. The afternoon service on the second Sunday in every month is in French.

*Reading Room.*—Habits of reading are fostered by a well appointed Reading Room, supplied with the best periodicals in literature and art, including French and German publications.

The College proper comprises the following: The School of Literature; the School of Music; the School of Art; the Eclectic School. The course of study in each of these schools extends over three years.

1. The *School of Literature* includes Mathematics, History, Classics, French, Italian and Spanish, Natural Science, Physiology, Domestic Economy, English Subjects, German.

2. The *School of Music* includes a course in Theory, Harmony, the History of Music, and Choral Singing, and in *one* of the following:—Piano, Singing, Organ, and Violin; and to gain a moderate degree of knowledge in *one* of the remaining three. By arrangement, Trinity University, Toronto, will hold Examinations in this College for those pupils who desire to proceed to the Degree of Bachelor of Music. A scholarship at the Conservatory of Music, Leipzig, has been lately founded for graduates from this School.

3. The *School of Art* includes the Course of Study pursued in the Ontario School of Art and the Local Art Schools.

4. *Eclectic School.*—The Course of Study in this School has to be approved of by the Principal.

DIPLOMAS, MEDALS, ETC.—Diplomas are awarded in each School, and certificates are given for a partial course. Several Gold and Silver Medals are available for competition.

FELLOWSHIPS.—Two Fellowships of the value of $100 each per year, for two consecutive years, are awarded in each School to the students who have been placed respectively first and second at graduation; such students to continue in the College the study of the subjects in which they have gained the distinction.

SCHOLARSHIPS.—Scholarships, for General Proficiency in the different Schools, are annually offered for competition in June.

## 6. Wesleyan Ladies' College, Hamilton.

This Institution, situated in Hamilton, was incorporated by Act of Parliament and was opened in 1861, under the auspices of the Conference of the Methodist Church in Canada. It was the first College in the Province chartered for the separate education of young ladies, although not the first which provided facilities for the higher education of women. The Upper Canada Academy—another Methodist institution—(now Victoria University), which was opened in 1836, had from the very first a ladies' department in it, presided over by a Preceptress and other teachers. It was then the only institution of the kind in Upper Canada that formally adopted the principle of co-education.

Under the Act of incorporation of this College, the President and nine members of the Board of Directors are elected by the Stockholders, and the remaining five by the General Conference, and may belong to other Protestant communions, while the pupils are at full liberty to attend their own churches.

COURSE OF STUDY.—The Course of Study is very complete, preparing the pupils to appreciate the standard works of the day in Science, Literature, Languages and Philosophy.

DEPARTMENTS OF STUDY.—The PREPARATORY and the ACADEMIC Department lead up to the COLLEGIATE Department, which extends over four years, and is quite comprehensive, qualifying pupils to pass the Graduation Examination in any form of the High School Course. Full courses in the Modern Languages, under native teachers, are provided.

*Additional Departments.*—Besides the ordinary scholastic course, there are connected with the College a School of Music and an Art Department, in which the studies are the same as are pursued in the Provincial School of Art and Design, with which this Department is affiliated; consequently the examinations and the chances of Provincial prizes are the same.

SCHOLASTIC ADJUNCTS.—A Library of well-selected books, a Reading Room, a general Museum—the accumulation of over twenty years—and a fine set of maps, globes, etc., increase the efficiency of the College.

SOCIETIES.—In connection with the College there are two Literary Societies, a Senior and a Junior, the object and exercises of which are alike. A monthly paper, *The Portfolio*, in the strictest sense a students' paper, edited by students in attendance, and under the direct supervision of the Faculty, is issued by these Societies.

PRIZES.—Besides the Governor-General's Silver Medal for proficiency in English Literature, prizes are offered in the different Departments by friends of the College and by the Association of Alumnæ.

HONORS.—The College has power to confer scholastic distinctions. The title of M.L.A. (Mistress of Liberal Arts) is given to those who complete the Classical Course; that of M.E.L. (Mistress of English Literature), to those who complete the English Course; in each case a Diploma accompanies the title. Certificates are granted to those who take a partial Course, and Diplomas to those who complete the Course in Music.

## 7. Ontario Ladies' College, Whitby.

This College is situated in the town of Whitby, and occupies extensive buildings very appropriate to college purposes. It is conducted under the auspices of the Methodist Church of Canada. The grounds embrace an area of about ten acres and are abundantly provided with means of out-door exercise.

The COURSE OF STUDY comprises three Departments—Preparatory, Academic and Collegiate—in each of which the subjects of study include all that are usually taught in schools of a high grade.

COLLEGIATE COURSE.—The work required for University Matriculation is made the basis of the Collegiate Course, so that pupils may prepare for this examination, or for any of the examinations for teachers' certificates, whilst attending the regular classes and going on to graduation. Special attention is given to Reading and Elocution.

SCHOOL OF MUSIC.—This School, presided over by a Professor of Music, presents a graduation course in Instrumental and Vocal Music, such as is given in American and European Conservatories. The course of study is adapted for those wishing to fit themselves to become teachers or organists.

SCHOOL OF FINE ART.—The instruction given in this Department carries the pupils over a graduation course in the principles of Fine Art, such as is given in the Ontario School of Art, with the same examinations and certificates.

APPARATUS, ETC.—The Museum and apparatus for the teaching of the higher branches of Natural Science are well adapted for the teaching of this subject in ladies' colleges.

MEDALS, ETC.—A number of medals, gold and silver, as well as scholarships, are open for competition to pupils in the various Departments.

DEGREES AND DIPLOMAS.—The Degree of M.L.A. is conferred on those who satisfactorily complete the prescribed course of study. That of M.E.L. is conferred on those who complete the same course, without Latin, French and German. A Diploma is granted to those who complete the prescribed course in Music. Diplomas, grades A and B, are awarded to those completing the Fine Arts Courses.

SOCIETIES.—Two Societies are formed among the pupils—a Missionary Society, which takes great interest in the Home and Foreign Missionary Society of the Methodist Church; and a Literary and Musical Society, which publishes monthly throughout the collegiate year a paper called *The Sunbeam.*

VISITORS' REPORT.—The Visitors appointed by the General Conference of the Methodist Church report annually to that body.

## 8. Ladies' College, Ottawa.

This College, pleasantly situated in Ottawa, the capital of the Dominion, was established under the auspices of the Presbyterian Church of Canada, with a view to afford the young ladies of the eastern portion of the Dominion a first-class education, based upon Protestant principles. To this end the Board of Managers secured affiliation with, and recognition from, the General Assembly of the Presbyterian Church in Canada, who appoint two Visitors, and, by Act of Parliament, eight members of the Board of Trustees (fifteen in all) must belong to the Presbyterian Church.

COURSE OF STUDY.—The Course of Study is comprehensive, embracing a Preparatory Course, and three Collegiate Courses—Junior, Middle, and Senior—designed to afford a thorough training in the branches of an English, Classical and Scientific Education. With a view to impart a good education to the pupils, the English subjects receive special attention, both in the purely literary and historical departments—thus giving prominence to a study of the English language, literary and historical.

FINE ARTS.—In the Fine Arts Department, pupils are instructed in Sketching from Models and Nature; Crayon Drawing; and Painting in Oil and Water Colors. Free Hand Drawing is compulsory on every pupil in the College.

MUSIC.—While Music is one of the departments of instruction, the Conservatory of Music offers advantages to those who desire to devote themselves entirely to the study of music. The Course embraces Piano, Organ, Violin, Vocal Music, Harmony and Composition.

Diplomas, Certificates, and Prizes.—Diplomas are granted to such students as take up the College Course regularly and proceed from year to year; and Certificates to those who take a special course adapted to their literary standing. Besides these, prizes are awarded in the form of gold and silver medals for *First* General Proficiency; and of books for *Second* General Proficiency, and the highest marks in each study.

## 9. Demill Ladies' College, Oshawa.

This College, under the management and control of the Rev. A. B. Demill, is well situated near the town of Oshawa. The building is large and commodious, and supplied with various modern improvements. The College is non-denominational, but every effort is made to surround the students with the highest moral and religious associations. One very noticeable feature in connection with the School is that there are no day pupils.

Course of Study.—There are two courses in the College: the Preparatory, covering two years, in which the subjects of study are entirely English; the Collegiate, covering three years, in which the instruction is of the highest academic nature. The Music and the Art Departments are under the supervision of competent teachers.

Course in Music.—Pupils desiring to graduate are required to pass an entrance examination. The course spreads over two years and embraces the following studies: Pianoforte, Organ, Harmony and Musical Form. The examinations for graduating pupils are conducted by outside examiners. A successful examination at the end of the full course will entitle the pupil to a Diploma.

Art Department.—The course embraces the elementary principles and rules of Drawing as applied to both pencil and crayon. Special attention is paid to instruction in Oil Painting, Ornamental Painting on China, Glass, Wood, Brass, Satin, and Plush. Sketching from Nature is a prominent feature of the course in this Department.

Elocution.—Semi-weekly lessons in Elocution are given by a thoroughly competent teacher. Careful attention is given to vocal culture and an effort is made so that an easy and natural style of reading and speaking may be acquired.

Honors.—Satisfactory examinations in the course will entitle the students to the Degree of "Mistress of Liberal Arts." When the examinations are confined to the English branches the students will receive the Degree of "Mistress of English Literature."

Library, etc.—The Library and the Reading Room are well equipped, and a Museum is in course of formation.

## 10. Woodstock College—Ladies' Department.

(*See Woodstock College.*)

## 11. Loretto Abbey, Toronto.

The Institute of which this Abbey (founded in 1847)—the Mother House in Canada—is a branch, is of ancient origin, and has been for more than two centuries devoted to the instruction of youth. The Mother House was first established in Rome, whence it was transferred to Munich. From this latter city, about 1683, Houses were established in Hammersmith and York, England. In the early part of this century (1822) the community established a

House at Rathfarnham, near Dublin. To this first Irish foundation the Mother Superior gave the name of "Loretto," from the House of Nazareth now at Loretto, in Italy. Hence all filiations from the Irish Mother House have carried the name with them.

Statistics.—The cost of the buildings was $70,000. The income varies from $11,000 to $13,000. Cost of board and tuition, $200 a year. The number of pupils is 200 ; about the same number have graduated since 1847.

Studies.—The Course of Instruction in this establishment extends from four to six years. It comprises every branch suitable to the education of young ladies. They receive tuition, according to the wishes of parents or guardians, in English, French, Italian, German and Latin Languages; Harp, Piano, Melodeon and Guitar ; Singing ; Oil Painting, Grecian Oil Painting, Painting in Water-colors; Pencil, Pastile, and Monochromatic Drawing ; Embroidery, Plain and Fancy Needlework, etc. Lessons are given in Domestic Economy. The same Course of Instruction is, in the main, pursued in all the Convents and Academies of Loretto.

## 12. Academy of the Sacred Heart, London.

The order of the Sacred Heart was founded by Madame Barat, in France, in the year 1800, for the puspose of securing a Christian education to women of the higher classes. Houses of this Order exist in Australia, New Zealand, Mexico, and Algiers. Its teachers must hold themselves in readiness to go to any post assigned them by the Superior-General, who resides in Paris. Facilities are thus afforded pupils for acquiring foreign languages. History, literature, the languages, and music receive special attention in the plan of studies. Opportunities are also given for art studies.

The ladies of the Sacred Heart were invited to London by Mgr. Pinsonneault in 1857. The first location chosen was Mount Hope. Afterwards, the Lawrason estate was purchased in 1865. It is surrounded by beautifully laid out grounds. The ladies put up a large brick addition, at a cost of over $30,000, which is admirably heated, lighted, and ventilated. The number of pupils of all kinds in attendance is about 250.

## 13. St. Joseph's Academy, Toronto.

This Academy was established in the year 1856, by the Sisters of St. Joseph, a religious community founded in Lyons, France, in 1650. With few exceptions, the Separate Schools of the Diocese of Toronto are under their charge. The building is very large and is well equipped. It is situated near the Queen's Park. The Academy is under the supervision of the Mother Superior, and the teaching is done by the Sisters of the Community, aided by Professors in one or two Departments. There are about 150 pupils in attendance.

Course of Study.—There are two Departments, a Junior and a Senior; the former embracing all the subjects of an elementary course, including a Kindergarten. The studies in the Senior Department extend over three years, and embrace English, Mathematics and Languages. In this Department the pupils are prepared for University honors, and for First, Second and Third-class Teachers' Certificates.

Special Course.—In this course the pupils are thoroughly grounded in English, and devote additional time to the Modern Languages, Music, Painting and Fancy Work.

Prizes.—At the end of the scholastic year prizes are distributed in the form of medals, gold and silver. Graduating honors, certificates of merit, etc., are also awarded.

## 14. Loretto Convent, Lindsay.

This Institution is situated on a slight elevation, which commands a view of the town, the river, and the surrounding country. It was established in 1876. The edifice is noted for the perfection of its style and finish, and for the method of ventilation adopted in the Convent. The study halls, dormitories, etc., are furnished with all modern improvements, chiefly under the direction of the late lamented Father Stafford, of Lindsay.

The great object of the pupils attending this Convent is to pass the Departmental Examinations. It is not so in the other houses of the Institute, consequently a somewhat different course of studies is pursued. In the highest class, composed of about 25 pupils, the High School curriculum is followed. Out of this class 43 passed the Departmental Examinations in three years.

STATISTICS.—The cost of the building was $30,000. The income is about $4,000 a year. The number of teachers is six, and the number of students and pupils about 120 ; the number of graduates, 55.

STUDIES.—The Course of Study for the ordinary pupils is similar to that of the Loretto Abbey, Toronto.

## 15. Loretto Academy, Belleville.

This Seminary was established at a cost of $20,000. Its annual income is about $4,000. The course extends to eight years, and is similar to that of the Loretto Convents. The number of students and pupils is 155.

## 16. Loretto Academy, Niagara Falls.

This Institution is situated on a healthy location, overlooking the Falls of Niagara, on the Canadian side, and affords an extensive view of the Falls, Rapids and Islands in the vicinity. It was erected at a cost of $100,000, and opened in 1861. The number of pupils is 63. The studies are the same as in the mother institution, Toronto. Particular attention is given to Music, and the pupils are required to perform at concerts once a month in presence of the teachers. Two medals are given annually—one for satisfactory conduct and assiduity at study, the other for Domestic Economy (including order, neatness of person, and exactitude in keeping in repair articles of clothing, etc.)

## 17. Loretto Convent, Hamilton.

This Academy for Young Ladies, directed by the Ladies of Loretto, was established in 1865. It is situated on elevated ground (Mount St. Mary) in the western part of the city, and commands a view of Lake Ontario, Burlington Bay, and the broken range of mountains which extends through this part of Canada. The grounds are extensive and ornamented with shrubs and trees. The Course of Study is similar to that of the other Loretto Convents. The number of students is over 100, and the number of graduates 60.

## 18. Loretto Convent, Guelph.

This Institution was established in 1856. It has five departments of study, and the length of the course extends to seven years. The number of pupils is 390, and the number of graduates 12.

## 19. Loretto Convent, Stratford,

This Convent was established in 1879. Its annual income is $3,000. The average number of pupils is 75.

NOTE.—Besides these Colleges and Schools for young ladies, there are many very superior private schools for the education of young ladies in Toronto and other places in Ontario.

## V. *MEDICAL COLLEGES AND SCHOOLS.*

### I. College of Physicians and Surgeons of Ontario, Toronto.

The Medical Profession in Ontario was first incorporated by an Act of Parliament in the year 1866, and the name given to it in its corporate capacity was The College of Physicians and Surgeons in Ontario. As every legally qualified Medical Practitioner in the Province is a member of this College, it is not, as its name might indicate, an institution for the teaching of Medicine.

The Council.—The business of this corporate body is managed by a Council composed of (1) a Representative from each of the Universities in the Province, (2) Twelve Territorial Representatives who are elected by the Registered Practitioners of Medicine residing within the territorial division, and (3) Five Representatives from the Homœopathic Practitioners. The Council regulates all matters connected with medical education ; determines the Curriculum of Studies to be pursued by Students ; appoints a Board of Examiners. Candidates passing a satisfactory examination before the Board are enrolled as Members of the College—the prerequisite for being legally qualified to practice their profession in Ontario. In the case of practitioners duly qualified in other countries, the Council fix the terms on which they may be admitted and become legally qualified practioners. In all cases, however, they must undergo the examination.

### 2. Toronto School of Medicine.

This Medical School, recognized by the several Colleges of Physicians and Surgeons in Great Britain, was established as the Rolph School in 1843, and incorporated by Act of Parliament in 1851. It is in affiliation with the University of Toronto and Victoria University, of which it may be consider the Medical Faculty. The Staff of Lecturers is composed of seventeen physicians. The School is in close proximity to the General Hospital. The students have also access to the various public charities of the city.

Course of Study.—As fixed by the College of Physicians and Surgeons of Ontario, the Course of Study extends over four Winter Sessions of six months each.

Summer Session.—A Summer Session is held in the General Hospital. The teaching is entirely practical and demonstrative, and is intended to supplement the Winter Session.

### 3. Trinity Medical School, Toronto.

This School was originated in 1850 by Drs. Hodder, Bovell, Badgley and Bethune, and then became a Faculty of the University of Trinity College. In 1855-6 it ceased to be a Faculty of the University. In 1871 it was reorganized under a Faculty differently constituted but with many of the original Professors. In the year 1877 the School, instead of being one of the Faculties of the University of Trinity College, became an affiliated body.

Course of Study.—The Curriculum embraces all the subjects required by the College of Physicians and Surgeons of Ontario ; and besides these, Lectures on Medical Psychology, Biology, Zoology, etc., are provided for those students who desire to graduate at the University of Toronto, or wherever else these courses are demanded.

Affiliation, Etc.—This School is in affiliation with the Universities of Trinity College, Toronto, and Manitoba, and is recognized by the Royal College of Surgeons, England; the Royal College of Physicians of London; the Royal College of Physicians and Surgeons, Edinburgh; the Faculty of Physicians and Surgeons of Glasgow; the King's and Queen's College of Physicians of Ireland, and by the conjoint Examining Boards in London and Edinburgh.

Summer Session.—A Summer Session of eight weeks, consisting of Didactic and Clinical Instruction, Lectures, and Demonstrations, is given at the Toronto General Hospital by the Professors of this School, conjointly with the Professors of the Toronto School of Medicine.

## 4. Royal College of Physicians and Surgeons, Kingston.

This Medical College was incorporated in 1854, and, possessing independent powers and privileges, is entitled to confer upon its own students and others the Diplomas of "Licentiate" and "Fellow." In consequence of its affiliation with Queen's University, its students obtain the Degree of "Doctor of Medicine and Master of Surgery," by passing the requisite examination.

Foreign Recognition.—Certificates of attendance at this College are recognized by the Royal College of Surgeons, London and Edinburgh.

Curriculum.—The Course of Study embraces all the subjects required by the Royal College of Physicians and Surgeons of Ontario, and may be pursued either at the College, or partly there and partly at some other recognized Medical School, provided that at least one full session has been spent at the College. *Full* courses in the subjects of instruction for at least three (3) sessions must be attended before a student can present himself as a candidate for either the Diploma of the College or the Degree of the University. In either case the candidate must have completed a period of four (4) years' study, and have passed the Matriculation Examination of Queen's University or its equivalent.

## 5. Ontario College of Pharmacy, Toronto.

The Ontario College of Pharmacy is established in Toronto, having been incorporated by Act of Parliament in 1871. It is designed for the education of those who desire to carry on the business of Chemist or Druggist.

The Council.—The College is under the control of the Pharmaceutical Council. It has authority to grant certificates of competency, and the holders of these certificates must be registered. The qualification for such certificates is that the candidate shall furnish to the Council satisfactory evidence of having served an apprenticeship, under a written contract, for not less than three years, to a regularly qualified Pharmaceutical Chemist. He must also satisfy the Council that he has passed an examination entitling him to admission to a High School, Collegiate Institute, or to a fourth class of a Public School.

Course of Study.—The course of instruction pursued in the College covers all the subjects prescribed by the Council for certificates, and embraces Chemistry, Elementary and Pharmaceutical; Pharmacy; Materia Medica; Botany; Practical Dispensing; Reading and Translating Prescriptions.

## 6. School of Dentistry of the Royal College of Dental Surgeons for Ontario.

The Royal College of Dental Surgeons, incorporated in 1868, was empowered to establish a School of Dentistry in the City of Toronto.

Requirements.—The authorities of the School require, as a preliminary, that the candidates shall have passed the High School, or an equivalent examination. He must also enter into indentures with a Licentiate for two years and a half, during which time he must attend two full courses, of four months each, in the School of Dentistry.

Examinations.—At the end of the first course of lectures he must pass an examination in Operative Dentistry; Mechanical Dentistry; Anatomy; Surgery; Physiology; Chemistry and Materia Medica. An infirmary furnishes subjects for practical work. This Examination constitutes the Primary. The Final Examination, leading to the Diploma of Licentiate of Dental Surgery (L.D.S.), embraces the same subjects treated more minutely. A further Diploma of Master of Dental Surgery (M.D.S.) is conferred, after thorough examination in the same subjects, but of a more advanced character, and the writing of a Thesis on some prescribed subject, on Licentiates of not less than five years' standing.

## 7. Women's Medical Colleges, Kingston and Toronto.

Although Colleges for the instruction and graduation of women in Medicine have long been in operation in Great Britain and the United States, the first step in that direction was not made in this Province until the year 1880, when the principle of co-education was attempted at the Royal College of Physicians and Surgeons, Kingston. As this did not prove satisfactory, a School for Medical Education of women only was established in 1883. The City Council of Kingston placed at the disposal of the School apartments in the City Buildings, and by means of generous donations the School was placed upon a permanent basis. A similar School was established in Toronto the same year, and it is the aim of each to give all the students a thorough grounding in the scientific and practical rudiments of Medicine.

The Course of Lectures in each College is equivalent in all respects to the ordinary Winter Course delivered in other Medical Colleges and Schools. The requisites for graduation differ in no sense from what is required from the male students. Several have already graduated from the Kingston College; two of whom have gone as missionaries to India; the others have built up good practices, and one of them is a Professor in her Alma Mater. The College in Toronto has not been established long enough to send out any graduates.

## Ontario Veterinary College, Toronto.

The Council of the Agricultural and Arts Association was by Act of Parliament empowered to establish a Veterinary College for the instruction of pupils by competent and approved teachers in the science and practice of the Veterinary art, and examine pupils in Anatomy, Physiology, Materia Medica, Therapeutics, Chemistry, and as to the breeding of domesticated animals; and upon proof to the satisfaction of the Council that such pupils possess the requisite qualifications, to grant Diplomas certifying that they are competent to practice as Veterinary Surgeons.

In 1862-1863 a course of lectures on Veterinary Medicine was given in connection with Professor Buckland's Agricultural Class. The course was attended principally by agricultural students. In 1866 three of them graduated. In 1869 part of the premises now occupied by the College was built by Dr. Andrew Smith, Principal of the School. The number in the class at present is about 270, and nearly one-half of that number came from the United States. Five hundred and forty-six (546) students have graduated.

## STATISTICS OF THE MEDICAL SCHOOLS, ETC., IN ONTARIO, 1885–86.

| Name. | Date of Incorporation. | Subjects of Study. | Length of Course. | Number of Staff. | Number of Students. | Number of Graduates. | Institutions with which affiliated. |
|---|---|---|---|---|---|---|---|
| Toronto School of Medicine ......... Toronto. | 1843 | Those prescribed by the College of Physicians and Surgeons, Ontario. | 4 Years. | 17 | 225 | 800 | 1. University of Toronto.<br>2. Victoria University. |
| Trinity Medical School.............. Toronto. | 1850 | Do do do .... | Do | 14 | 287 | 544 including 214 Fellows. | 1. University of Trinity College.<br>2. University of Toronto.<br>3. University of Manitoba. |
| Royal College of Physicians and Surgeons, Kingston. | 1854 | Do do do .... | Do. | 10 | 155 | 430 | Queen's University. |
| Medical Department of Western University, London. | 1882 | Do do do .... | Do | 15 | 37 | 3 | 1. Western University.<br>2. University of Toronto. |
| Women's Medical College ........... Kingston. | 1883 | Do do do .... | Do | 11 | 12 | 7 | Queen's University. |
| Women's Medical College ........... Toronto. | 1883 | Do do do .... | Do | 13 | 14 | .... | University of Trinity College. |
| School of Dentistry, Royal College of Dental Surgeons, Toronto. | 1875 | Anatomy, Physiology, Dental Pathology and Histology, Clinical and Operative Dentistry. | 2 Sessions of 4 months each. | 4 | 39 | 172 | |
| College of Pharmacy .............. Toronto. | 1871 | Chemistry, Pharmacy, Materia Medica, Botany, Prescriptions and Practical Dispensing. | 2 Courses of 3 months each. | 3 | 60 | 690* | |
| Ontario Veterinary College ........ Toronto. | 1863 | Anatomy, Physiology, Pathology, Chemistry and Materia Medica. | ........ | 7 | 270 | 546 | |

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* To these may be added 619 who registered at the time of Incorporation.

### *VI. BUSINESS COLLEGES.*

OBJECT.—These Colleges are a practically useful feature in our educational system. They give a business training that can be best obtained in this special class of educational institutions. Their object is to fit young men and women for the various departments of mercantile life. The leading Business Colleges in this Province are located in Toronto (2), Hamilton (2), Belleville, Brockville, Kingston, Guelph, Chatham, Peterborough, London, Ottawa and Owen Sound.

COURSES OF STUDY.—These Colleges are all conducted upon a similar basis, and pursue somewhat analogous courses, though these are possibly more varied in some Colleges than in others. The following details of subjects taught will give an idea of the work carried on: Spelling, Dictation, Business Arithmetic, Mental Arithmetic, Penmanship, Business Correspondence, Business Paper, Commercial Law, Book-keeping, Business Department, comprising Buying, Selling, Correspondence, Banking, etc.; Telegraphy, Type-writing, Shorthand.

## IX. MISCELLANEOUS INSTITUTIONS.

### 1. The Magnetic and Meteorological Observatory, Toronto.

*(Under the direction of the Dominion Government.)*

In the year 1838 the British Association for the Advancement of Science, in a memorial addressed to Her Majesty's Government, solicited their attention to the expediency of extending, by means of fixed Observatories, the researches regarding the geographical distribution of magnetic forces, to certain stations of prominent magnetic interest within the limits of the British colonial dominion. Canada was named as one of the stations, and a further suggestion was made that the observations should include meteorological as well as magnetical phenomena, and that the stations might be placed under the superintendence of the Master-General and Board of Ordnance.

These suggestions, which were approved of also by the Royal Society, were acted upon, and Lieutenant Riddell, of the Royal Artillery, was sent out as the officer to take charge of the Canadian station. He examined several localities, and at last selected Toronto. A grant of two and a half acres of land was offered by the Council of the University of King's College, with the sole condition that the buildings to be erected should not be appropriated to any other purpose than that of an Observatory, and should revert to the College when the Observatory should be discontinued. The sanction of the Governor-General having been obtained in January, 1840, the building was begun in the spring, and ready for occupation in September. The Observatory is situated in latitude 43°39′25″, and longitude 79°21′30″ W., at a height of 107.9 feet above the level of Lake Ontario, and of 342 feet above the level of the sea.

In 1841, on Lieut. Riddell's return to England, the Observatory was placed in charge of Lieut. Younghusband, who remained the Director until near the end of 1843, except for a few months, during which Lieut. Lefroy—now General Sir John Henry Lefroy, R.A., F.R.S., etc.—had charge.

In the year 1850 the Chief Superintendent of Education, the Rev. Dr. Ryerson, at the suggestion of Colonel Lefroy, R.A., submitted to the Government a plan for the establishment of meteorological stations throughout what was then known as Upper Canada, at every senior County Grammar School. In 1853 an Act was passed by the Legislature with the provision recommended. Delay having arisen in supplying the schools with reliable instruments, it was not until 1856 that observations were made at these stations. According to the original design there were thirty chief stations. These were subsequently reduced to ten. At present that number of High Schools report through the Education Department to the Observatory.

The magnetical observations at Toronto, under the auspices of the British Government, were brought to an end in the spring of 1853. Arrangements were shortly afterwards made by the Provincial Government, mainly at the prompting of the Council of the Canadian Institute, to resume the meteorological observations, and the duties were carried on under the guidance of the Professor of Natural Philosophy of University College, J. B. Cherriman, M.A., who continued in charge until the appointment of the late Director, G. T. Kingston, M.A., in the year 1855. The old Observatory was pulled down, and a new one erected on its site, in 1854. In 1880 the present Director, C. Carpmael, M.A., F.R.A.S., took charge, and under him great advances have been made. Foremost among these is the establishing of "Storm Signals," for warning shipping on the lakes and the seaboard of coming storms. The signals consist of a drum, a cone and a lantern, and by the varied position of these the warning is given. Besides these storm signals, which are displayed at the various ports, a code of "Harvest and Snow Signals" has been arranged, and by means of the signals—sun, moon and stars—farmers along the line of railway are warned concerning coming showers, etc. The messages are despatched from the Observatory to the local managers of the railways, and the shower signals are displayed on the moving trains. The daily papers are furnished with forecasts of the "Probabilities"; and below will be found a record of their correctness:—

1885.

STORM SIGNAL SERVICE.

| | | | |
|---|---|---|---|
| Warnings issued | 830 | Number verified | 741 |

Percentage verified 89.3

DIRECTION OF WIND.

| | | | |
|---|---|---|---|
| Number of predictions | 830 | Percentage | 78.9 |
| Number fully verified | 655 | Number fully and partly verified | 798 |

Percentage 96.1

PROBABILITIES.

| | | | |
|---|---|---|---|
| Number of predictions during year | 7129 | Number not verified | 520 |
| Number fully verified | 5681 | Percentage fully verified | 79.7 |
| Number partly verified | 928 | Percentage fully and partly verified | 92.7 |

The Observatory was established in 1841. Value of building and site, $18,000; instruments, $10,000. The services, meteorological and magnetical, are maintained by the Dominion Government at a yearly outlay of about $60,000.

## 2. Royal Military College, Kingston.

*(Under the Direction of the Dominion Government.)*

The primary object of the establishment of this College, which was opened on June 1st, 1876, was to secure such a complete military and scientific education to young men belonging to the country, as would qualify them to fill all the higher positions in the Canadian military service. At the same time, owing to the breadth and general scope of the Curriculum of Study the graduates are fitted equally for any civil business or profession, public or private.

The Course of Instruction covers four years. Part of this course is obligatory and part voluntary; the former embracing Mathematics, Fortification, Military Drawing, Military History, French or German, Elementary Chemistry, Geology, &c., Drawing (Freehand, Figure and Landscape), Drill (Infantry, Artillery, &c.;) while the voluntary subjects include Higher Mathematics, Higher Fortification, and Higher Chemistry, French or German (other than that taken in obligatory course), Architecture, Hydraulic Engineering.

The average number of graduates each year is about twenty, and of these four are granted commissions in the Imperial Army

## 3. The Law Society of Upper Canada.

"The Law Society of Upper Canada was established in 1797 by the Act 37, Geo. III., cap. 13, which enabled the then practitioners of the Law to form themselves into a Society 'for the purpose of securing to the country and the profession a learned and honorable body to assist their fellow-subjects as occasion may require, and to support and maintain the Constitution of the Province.' By the same Act, the Judges of the Superior Courts were constituted visitors, with the authority to sanction such rules as they considered necessary for the good government of the Society. In 1822 the Society was incorporated by the Act 2, Geo. IV, cap. 5, and its functions vested in the Treasurer and Benchers for the time being, elected according to the By-laws of the Society. The Benchers sit in Convocation every Law Term, for the admission of Students and Barristers, and for other general business."—*Hodgins' Canada Educational Directory.*

The permanent seat of the Society is at Osgoode Hall, Toronto. The Society is composed of the Visitors; the Treasurer; the Benchers (*ex-officio* and elected); the Secretary, Sub-Treasurer, and Librarian. In the year 1881 a Law School, with a staff of four Lecturers, barristers-at-law, was established; the attendence at which on part of the students is voluntary. The Examinations consist of a Matriculation Examination; a Primary; an Intermediate, and a Final for Call to the Bar. Scholarships of the respective values, $100, $60, and $40, together with a Diploma, are awarded to those candidates who, at the Intermediate Examination, have obtained three-fourths of the marks in Pass and Honor subjects. At the Examination for Call to the Bar, three Medals—gold, silver, and bronze—are awarded, together with Diplomas to such candidates as pass with Honors.

### 4. Public Libraries in Ontario.

In the year 1882 the Provincial Legislature passed "The Free Libraries Act," for the establishment of a Free Library in any city, town, or incorporated village. On petition, the Toronto City Council passed a by-law, establishing a library for the city.

In January 1883, the Free Library By-Law was endorsed by a vote of the citizens of Toronto; the building formerly occupied as the Mechanics' Institute, and afterwards by the "College of Technology," was secured for the purpose. The interior was remodeled so as to furnish a commodious Reading Room, and an additional building erected sufficiently capacious to hold a library of 150,000 volumes. In June the officers were appointed, and the Library was formally opened on March 6th, 1884; the Reading Rooms were opened on the 10th of the same month, and the issuing of books began on April 10th. In February of the same year branch libraries were established in the western and northern parts of the city.

*Other Free Libraries in the Province.*—There are Free Libraries in the following towns and cities: Berlin (2,066 volumes), Brantford (5,042), Guelph (4,035), Simcoe (2,742), and St. Thomas (2,626).

*Powers given to Mechanics' Institutes.*—Any Mechanics' Institute in a municipality in which a Free Library has been established according to "The Free Libraries Act," may, by agreement with the Board of Management, transfer to the Corporation of the municipality, for the purposes of the said "Free Libraries Act, 1882," all or any of the property, real or personal, of the Institute.

*The Provincial Library.*—To these Free Libraries, viewed as a portion of the educational machinery of the Province, may be added the Ontario Legislative Library, Toronto, with its 25,000 volumes, the University, and various college libraries.

## X. BENEVOLENT EDUCATIONAL INSTITUTIONS, ETC.

### Indian Schools for Boys and Girls, Sault Ste. Marie.

The Shingwauk Home for Boys and the Wawanosh Home for Girls are both situated at Sault Ste. Marie, District of Algoma, Province of Ontario. They owe their origin to the indefatigable efforts of the Principal, the Rev. Edward F. Wilson. The Shingwauk Home was named after an Indian chief (Little Pine), and was first opened at Garden River in 1873. Near the close of that year the Home was destroyed by fire, but was re-erected at Sault Ste. Marie during the following summer—the corner-stone having been laid by the Earl of Dufferin on the 30th July, 1874—and was opened on August 2nd, 1875.

The Wawanosh Home for Girls, also named after an Indian chief (Sailing Gracefully), was opened, with a number of Indian girls as pupils, on August 19th, 1879.

TRAINING.—The girls are thoroughly trained in housework, cooking, baking, and laundry work; and the boys, after spending about two years steadily at school, in their third year commence learning a trade, and during the last two years of residence rank as apprentices. . . . Carpentering and printing are taught within the precincts of the Institution, but for instruction in other branches of trade the boys are sent to the village near by.

These homes are supported mainly by voluntary contributions, the annual grant from the Indian Department being insufficient for their support. Most of the individual children are provided for by weekly contributions made in Canadian Sunday-schools of the Church of England. There are nearly eighty children in the two homes.

NOTE.—A number of Indian schools exist in various parts of the Province. They are under the management of the Dominion Government, but, for purposes of inspection, are under the supervision of the Ontario Education Department.

## XI. BENEVOLENT EDUCATIONAL HOMES AND REFORMATORIES.

### 1. The Boys' Home, Toronto.

This Institution, which now affords accommodation for 150 boys, was opened in 1859, for the training and maintenance of destitute boys not convicted of crime. The Home is open to boys from the age of five to fourteen years. After a boy has been a year in the Home, he may be apprenticed to some responsible person until he attains the age of eighteen years, his wages, meanwhile, being remitted to the Directors to be held in trust. At present the whole number thus apprenticed is sixty-seven. Since the opening of the Home it has afforded a home to 1,500 boys.

INSTRUCTION.—In 1873 the plan of having the boys taught in the Institution instead of attending the city schools was adopted, and proved satisfactory. In 1877 the Board of Trustees of the city schools appointed a teacher, and now the Home is one of the regular city schools, under a female teacher, paid by the Board. The subjects of instruction embrace those taught in the Third Book of Lessons. The religious welfare of the boys is fully provided for.

NOTE.—Similar institutions have been established in other cities of the Province.

## 2. The Girls' Home, Toronto.

This Institution was established as a Public Nursery in the year 1857. In the year 1860 its sphere of usefulness was enlarged by the admission of girls up to the age of fourteen, and by training them for household work. The object of the Girls' Home is "the rescue from vice of young girls, and the bestowal of careful attention to their religious, moral, and temporal welfare; also the maintenance and support of children under the age of seven years." The latter object having subsequently been taken in charge by a separate institution ("The Infants' Home"), the Girls' Home now provides for the maintenance and support of children from two to fourteen years of age.

INSTRUCTION.—In 1877 the City School Board assumed the responsibility of providing for the instruction of the children, and appointed a female teacher for that purpose as one of the regular staff of city teachers.

NOTE.—Similar institutions exist in other cities of Ontario.

## 3. The Orphans' Home, Toronto.

This Home, designed for the relief and support of all friendless orphans of members of all Protestant denominations, was established in 1851, the result, mainly, of a handsome donation from Jennie Lind, then on a professional visit to Toronto. The management of this institution is similar to that of the Boys' and Girls' Homes. Subscribers to the Endowment Fund to the amount of $200 are entitled to nominate one orphan to the charity.

The female teacher of the school is one of the regularly certificated teachers of the city public schools, the Home having been placed on the list of city schools in 1877, and being ranked as a Third Book Class.

NOTE.—Similar institutions exist in other cities of Ontario.

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NOTE.—As the public schools are unable to reach the class of neglected children which is to be found in cities and the larger towns, the institutions just named have been established, and chiefly supported by societies, to meet this want. They care for, educate and train a large number of such children. They are aided out of the Provincial Treasury, according to the number who are cared for in each institution.

## 4. Industrial School, Toronto.

The idea of establishing such a school in Toronto first suggested itself in 1858, and the plan was then largely discussed. In 1871 the School Act authorized Public School Boards of cities, towns and villages, to establish one or more such schools. An Industrial School for Toronto is now in course of erection near the village of Mimico, seven miles from the city, the Ontario Government having given a plot of eight acres, and leased forty-two in addition.

The Act passed in 1884 defines an "Industrial School" to be: A school in which industrial training is provided, and in which children are lodged, clothed and fed, as well as taught, shall exclusively be deemed an industrial school within the meaning of this Act.

### 5. Industrial Refuge for Girls.

When the "Andrew Mercer Reformatory for Females" was established at Toronto, in 1879, an "Industrial Refuge for Girls" was set apart for the reception of girls under the age of fourteen years, viz., beggars, wanderers, etc.

The Institution is under control of the Provincial Inspector of Prisons and Public Charities. From his Report the following facts are gleaned:—A change has been made in the school work. Instead of the night classes, day classes for the younger have been substituted. As the result of this change "the progress made by some of the younger and later entrants, in two of the elementary branches, was very satisfactory indeed, and indicates the general progress made." Again, "their progress in the school-room is reported (*i.e.*, by the teachers) to be satisfactory. Besides the day classes for the girls, evening classes in reading and writing for the older women who desire to be taught were established. These classes were well attended. The younger women —those under eighteen years of age—had an hour and a half's instruction every morning before beginning their daily work." (*Inspector's Report, 1885.*)

### 6. Ontario Reformatory for Boys.

About twenty years ago a Reformatory was established at Penetanguishene, on the eastern shore of the Georgian Bay, for boys convicted before any Court of Criminal Jurisdiction, under the charge of a Warden and certain other officers. In 1880 a change in the name and in character of the establishment was made. With a fuller recognition of its "reformatory" than of its "penal" objects, viz., the custody and detention, with a view to their industrial training, and the moral reclamation of the boys confined therein, it was styled a "Reformatory for Boys," and two or more schoolmasters, holding first or second-class certificates, were appointed to it as public school teachers.

The last Report of the Superintendent states that "a good majority of the boys appear to have made fair progress in acquiring the rudiments of an English education. The training of the boys in the different trades—carpentering, tailoring, and shoemaking—and also in the necessary domestic work, has been carefully attended to." At the close of the year there were 220 inmates.

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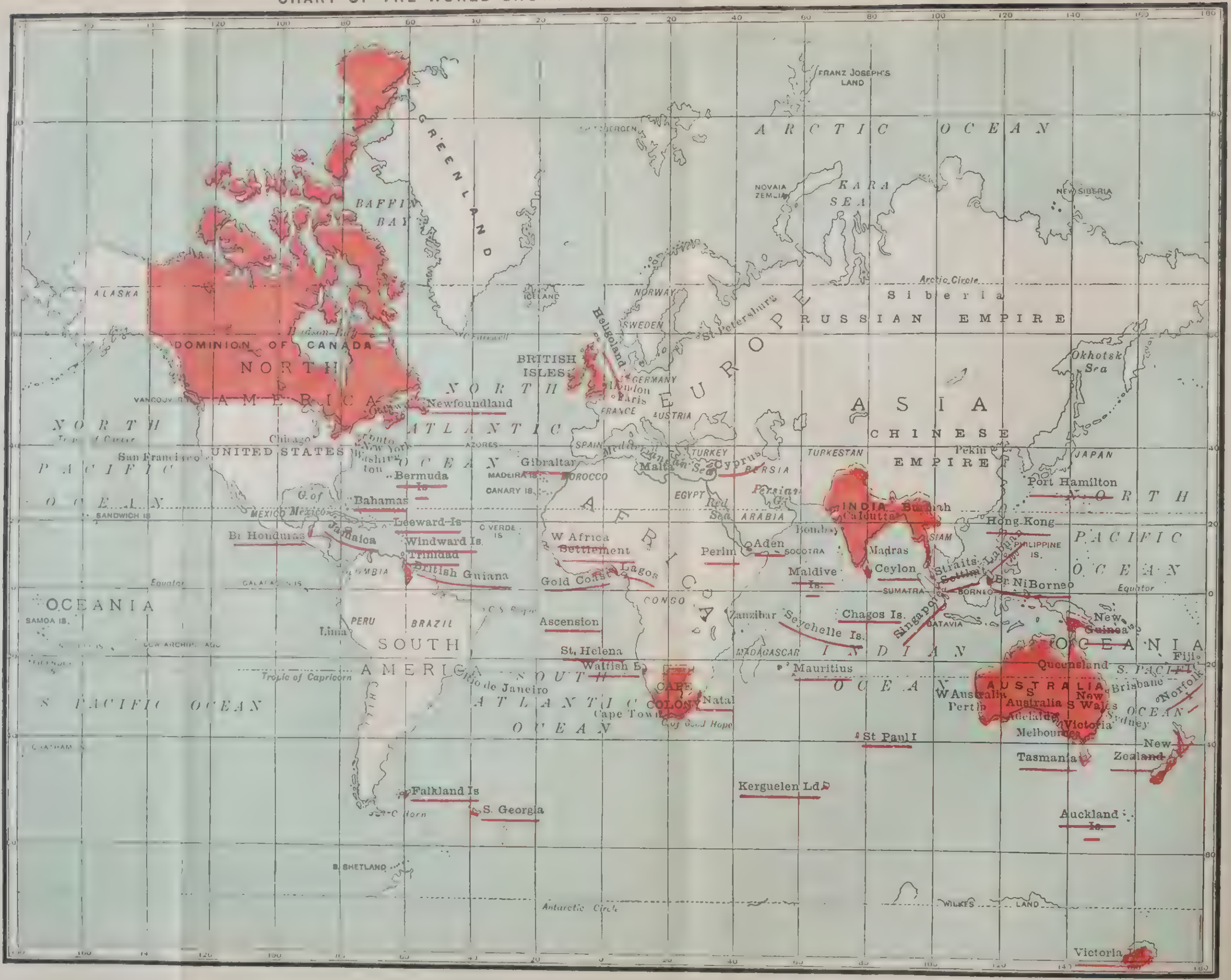
## CONCLUSION.

The Sunday Schools existing in the Province are estimated at 3,600, with 200,000 scholars, and 23,000 teachers.

Relying upon the various educational agencies of the Province, Ontario is steadily pursuing a course of progress—material, moral and intellectual. The interest in Education is wide-spread throughout the whole Province, and its people understand how much of their further progress, welfare and happiness depends upon the continued efficiency and improvement of their educational institutions, for which the fullest opportunities are afforded by their system of local self-government, and free political institutions.

## CHART OF THE WORLD SHOWING THE BRITISH POSSESSIONS.



WARWICK & SONS, Printers, 26 and 28 Front St. West, Toronto.

# REPORT

ON THE

# SCHOOL APPLIANCES,

## PUPILS' WORK, ETC.,

EXHIBITED BY THE

EDUCATION DEPARTMENT OF ONTARIO, CANADA,

AT THE

COLONIAL AND INDIAN EXHIBITION,

*LONDON, ENGLAND, 1886.*

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PUBLISHED UNDER THE DIRECTION OF THE HONORABLE THE MINISTER OF EDUCATION.

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BY

S. PASSMORE MAY, M.D., C.L.H.,
*Commissioner of Education at Exhibition.*

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1887.

EDUCATION DEPARTMENT.
TORONTO, March 1, 1887.

*To the Honorable* GEORGE W. ROSS, LL.B :

SIR,—I have the honor to present herewith my report on the Educational Exhibits for Ontario at the Colonial and Indian Exhibition, London, 1886. It contains a condensed list of the exhibits of school appliances and pupils' work, with remarks on the fittings and arrangement of the Educational Court of Ontario, together with newspaper notices, reviews, etc., showing the public appreciation of, and the great interest taken in, these exhibits by visitors to the Exhibition.

In addition to the description of Ontario exhibits, I have prepared an Appendix with short historical sketches of each colony and British dependency which took part in the Exhibition, accompanied by a map so colored as to show the British possessions throughout the world ; also a brief notice of the proposed Imperial Institute.

I may remark that about five and a-half millions of people visited the Exhibition, and the Educational Court was daily crowded from the time of opening until its closing ; and there is not the least doubt that the interests of this Province were promoted in Great Britain and on the Continent of Europe by showing the advanced position of education and science in the Institutions under your control.

I have the honor to be, Sir,
Your obedient servant,

S. P. MAY.

# INTRODUCTION.

Since the inauguration of the World's Fair in 1851, succeeding International Exhibitions have been held for bringing together people of different nations in peace and amity, to exhibit the productions of their countries and compare with one another the influence of industry, commerce and education on the civilized world; but the Colonial and Indian Exhibition, in a British point of view, is still more important; it is the first imperial display on English soil, showing the resources and capabilities of the Indian Empire, together with the magnitude, vast national wealth, industrial activity and enterprise, and education and culture of the colonies and British possessions, which constitute Greater Britain beyond the seas.

This Exhibition is primarily due to the foresight of H. R. H. the Prince of Wales, whose earnest desire and object has been that the series of exhibitions, held during the past few years at South Kensington, should culminate finally in one great imperial display of the resources and industries of the British colonies and Empire of India. His Royal Highness, as Executive-President of the Royal Commission, at the first meeting of the Commissioners, held March 30th, 1885, said that the project was essentially one of a national and imperial character, differing in this respect from former exhibitions, in which the elements of trade rivalry and profit largely predominated. It was decided that the Exhibition be held in the buildings and grounds at South Kensington, formerly used for the inventories, fisheries and other exhibitions. The governments of the different colonies were corresponded with, and as a rule they heartily co-operated with the scheme, large sums of money were voted and Executive Commissioners appointed for each country.

General regulations were issued by the Royal Commissioners for the guidance of the Executive Commissioners, which gave the latter considerable power. For example, the objects to be exhibited were left entirely to the discretion of the Governments participating, in so far as they illustrated the resources, products and manufactories of the country. There was no charge for space. Motive power and water were supplied free of cost. The Executive Commissioners had entire control of the arrangement of goods, but they had to provide all necessary attendance for keeping the exhibits properly cleaned and in good order, and all expenses connected with display and installation had to be paid by the Executive Commissioners.

On the other hand the Royal Commissioners wielded great power—they received all entrance fees, they insisted that all goods should be left uncovered from 10 a. m. to 10 p. m. on all days except Wednesdays and Saturdays, when the hour of closing was 11 p. m. No exhibit could be removed from the building without the permission of the Executive Commissioner, countersigned by the Secretary of the Royal Commissioners. No exhibit could be photographed without permission of the Secretary of the Royal Commissioners. The Royal Commissioners reserved the right of publishing and selling a general catalogue—any special catalogues had to be sold through the official publishers to the Royal Commissioners. The Royal Commissioners were not responsible for any loss or damage from whatsoever cause arising.

The Exhibition was declared to be opened by Her Majesty the Queen, on Tuesday, May 4th, 1886, in presence of the representatives of her subjects from every corner of the globe, and yet not every corner, as the *Canadian Gazette* says, for, sad to say, one part of British North America, Newfoundland—still isolated, though it would seem naturally intended to complete the existing confederation from Atlantic to Pacific—remained almost alone among British Colonies in absenting itself from participation in the great family gathering. The first feature in the day's programme consisted of the Royal progress through the Exhibition. Her Majesty was received by H. R. H. the Prince of Wales and Royal Commissioners, and some of the Colonial Commissioners, amongst them Sir Charles Tupper and the Hon. Hector Fabre representing Canada; the procession passed through some of the principal courts and entered the Canadian section in the middle of the central gallery. Facing Her Majesty on her entrance was the large coat of the Royal Arms, belonging to the Education Department of Ontario, lent to the Executive Commissioners for the occasion, Immediately in front of the entrance were arranged tiers of seats for the officers of the executive staff, etc., and in addition a large number of seats were provided throughout the court for Canadian residents and exhibitors. Her Majesty was received in the Canadian Court with enthusiastic cheering, and had a gracious smile and bow for every person. The procession then took a direct route to the Albert Hall, where the inaugural ceremony was held.

H. R. H. the Prince of Wales made a final inspection of the various Courts of the Exhibition on Saturday, May 6th, and expressed himself as much pleased with the Canadian section.

On Friday, May 21st, Her Majesty the Queen, accompanied by H. R. H. the Prince of Wales, Princess Beatrice and the Duchess of Albany, visited the Canadian section, and I had the honor of receiving them at the entrance to the Educational Court.

H. R. H. the Princess Louise and the Marquis of Lorne, as President of the Canadian Commissioners, were frequently in the Exhibition, and took the greatest interest in its progress and completion, and were ever ready to make suggestions or co-operate with Canadians by using their influence in making these exhibits more prominent and attractive.

The English and Foreign press were unanimous in their expression of admiration of the magnitude and commercial value of the Exhibition, and some of them referred to its great importance in a moral aspect, for instance, the *Times* says, "At the time of the first great exhibition, five-and-thirty years ago, it could hardly have occurred to anyone that the British Empire itself could, in the next generation, be capable of furnishing from its own resources an exhibition of the products of its industry, agriculture and fine arts, by the side of which even the great exhibition of 1851 would almost have paled its ineffectual fires. But it is as the symbol of the moral unity of natural sentiments which constitutes a world-wide empire that the Exhibition appeals most strongly to every subject of the Queen.

The *Standard*, after referring to the display being of immense commercial and political value, says, "The fraternity of nations, to accomplish which was the object of the Exhibition of 1851, was a dream; the oneness of the British Empire, as shown by the present show, is a fact."

The *Daily Telegraph* refers to the fact that Canada is now not only within a week of Liverpool, but has supplied in its transcontinential railway a new link with the distant dependencies on the Pacific Ocean.

The *Echo* regards the Exhibition as an event of national importance. "It will," it says, "bring home to the crowds, as nothing has brought home to them before, the greatness of the Colonial Empire of which most Englishmen know so little; and show that if a union of the whole be once placed beyond uncertainty, a career lies before us which may even eclipse our past lustre."

The *Morning Post*, after reviewing the vast changes in the British Empire since the age of exhibitions commenced, remarks that India was still unsettled. New Zealand was the object of contention between English settlers and the Maories, the magnificent colonies of Australia were still but a "dumping ground" for the dregs of the criminal classes of the old country, while Canada was only commencing the work of constructing the networks of railways, which now brings the produce of her most distant fields within reach of the markets of Europe.

Not only the press, but the people themselves, were enthusiastic in their appreciation of the efforts of the colonists to show the world the fruits of their industry, self-reliance and indomitable perseverance. Entertainments were provided for the representatives of the different countries by royalty, nobility, steamboat, railway and public companies, municipal corporations of various cities and towns, city guilds, manufactories, private individuals, etc. It seemed, in fact, as if all classes of people throughout the country were anxious to acknowledge their blood relationship to their friends from the colonies.

It is not my province to enter into a detailed description of the various exhibits. I shall, therefore, briefly refer to the general Canadian Exhibition, and then point out the principal features of our Educational Exhibit, and finally give a condensed summary of the educational exhibits from the different countries belonging to the British Empire.

The Commissioners in London, representing the Dominion of Canada, were as follows:—

PRESIDENT.

The Marquis of Lorne, K.T., G.C.M.G.

VICE-PRESIDENT.

Viscount Monck, G.C.M.G.

EXECUTIVE COMMISSIONER.

The Hon. Sir Charles Tupper, G.C.M G., C.B.

HONORARY COMMISSIONERS.

The members of the Government of the Dominion, who were in London during the Exhibition :

The Hon. Hector Fabre, C.M.G.

The Hon. Gédéon Ouimet, Superintendent of Education, Quebec.

The Hon. George Kirkpatrick.

The Hon. George W. Ross, L.L.B,, Minister of Education for Ontario.

JOINT SECRETARIES.

Frederick J. S. Dore, Thomas Cross.

ACCOUNTANT.

C. C. Chipman.

The Dominion had over 2,000 exhibitors, and occupied nearly 100,000 square feet of space. Unfortunately this space was very much sub-divided, the original space awarded to Canada was inadequate for the display of all its exhibits, consequently additional space in different parts of the buildings had to be granted from time to time as the goods arrived. It was, therefore, impossible to classify the goods so well as could have been done had all the allotted spaces been in one place. It was, however, a grand display, a practical exemplification of the products, manufactures and education of our great country, and although not fitted up so showily as some of the others, it was universally acknowledged that the exhibition was thoroughly practical, and the decorations neat in design, were so arranged as to harmonise with the exhibits.

The *Times*' remarks, in reference to the area occupied by Canada, are as follows:—

> "Had the Dominion kept aloof what a blank there would have been any one can realize who look at a plan of the Exhibition, and see how Canada is spread almost all over the building, from the gateways of British Guiana and the West Indies on the one side to the frontiers of Natal and the Cape on the other, reaching south to the confines of New Zealand and stretching away int the North-West Territories of the arcades and the conservatory. Our American Dominion indeed, occupies quite as much space as our Asiatic Empire, and nearly as much as all the Australian colonies put together. And rightly so, no doubt, for has she not an area of some three million square miles, and can she not look back upon a venerable antiquity of 300 years? Had

she not cities and cathedrals, legislatures and great battle-fields, long before anybody thought of making Botany Bay even a penal settlement? The Canadians have evidently determined that in variety and quantity of exhibits, at least, they shall not be excelled, and, on the whole, they have succeeded. In more than one department they are not approached. In none of the courts i progress in all directions more striking and more patent; none of them—with, perhaps, the exception of India—have richer resources of a solid and enduring character to show; and, all in all, none of them can glory in more marvellous results of human industry."

I may remark, too, that Canada was the only country which exhibited machinery in motion.

The *Leeds Mercury* says:—"Pushing Canada comes out bravely with agricultural products, and with machinery and implements, too, being singular in this latter display, as the other Colonies do not show a score of implements between them. The display, as it is, must fill the ordinary visitor with astonishment, and make him proud of his birthright as a Briton. No other nation in the world could make such a magnificent display of its own products and manufactures.'

Foreign journals have also shown their appreciation of the importance of the Exhibition. Among these is *L'Independance Belge* of Brussels, which says:—"Canada, as large as Europe, covering an area of 2½ million square miles, occupies a prominent place at the Exhibition. Especially in agriculture does it excel. The trophy of grain and fruits is *grandiose*, and one may say as much of the agricultural implements—tools so perfect and so superior to everything made in Europe, that economists are asking why its (Canada's) manufacturers persist in sheltering themselves behind protective duties."

The exhibition opened up considerable newspaper correspondence in regard to foreign and colonial competition. The following extract is from an excellent letter on "Buying goods abroad," by an "Englishman," published in the *Daily Telegraph*:

"I have to submit that England has not only to contend with foreign, but must also be prepared to meet Colonial competition. Many of the Colonies already in several manufactures supply their own wants, some are exporting to other Colonies, whilst some, instead of receiving, are sending finished goods, and not raw material only, to the mother country. The present Exhibition at South Kensington will directly tend to this result. Take the case of Canada: it is generally admitted that the courts allotted to the Dominion are the most practical displays in the whole Exhibition. The machinery hall is always crowded, and the agricultural machines, several of them in motion, attract a great deal of attention. Probably it has surprised many to witness the degree of excellence in their manufacture attained by the Canadians. They boast, I am told, that their machines are superior to any in the world, the American inventions not excepted. The makers are always on the alert to pick up a new idea, which they adopt with no consideration of expense. A great need for labor-saving contrivances has stimulated their production. Here, with an agricultural population in excess of the demand, there has been rather a retarding influence at work, and machines which take the bread out of the mouths of men have been slow to advance in the agriculturist's favor. Thus it has come about that so young a country as Canada can now claim the lead with a unique collection of steam threshers, self-raking reapers, binders, mowers, harvesters, hay-tedders, etc.

The wealth which Canada possesses in her splendid forests has, within the last few years particularly, considerably improved her position as a manufacturing country. The manufacture of doors, sashes, and blinds constitutes an industry especially prosperous in Ontario. There are specimens on view at South Kensington, and the prices are said to be lower than that at which the same kind of articles can be turned out by English carpenters. We import large quantities of ready-made doors from Germany and other parts of the continent, and the question is asked by Canadians, 'Why patronise the foreigner, when we can serve you better?'"

Letters were then published referring to the superiority of German goods which, they said, was owing to the practical and technical education of the German nation.

I immediately put myself in communication with some of the principal newspapers, and endeavoured to show that the improvement in our manufactures and more artistic finish on certain classes of our goods is due to the free education of our people. I referred to our Mechanics' Institutes and Art Schools, also to the specimens of industrial work exhibited, and invited the public to visit the Educational Court and find out for themselves what I consider to be the strong points by which Canada has so prominently and successfully shown the excellence of her manufactures to the people of older and more wealthy nations.

The following extract on this subject is from the *Canadian Gazette :*

"English journals have recently taken pains to point out how Canadians are excelling in the manufacture of certain implements, and how hard British manufacturers are being pressed by competition here and competition there. Why is this? Must not the cause be sought in the technical and practical education which it is so vital a part of the Canadian, German, and other systems to instil into the young mind? And cannot the superiority of design and execution shown in many branches of Canadian manufactures be attributed to the thoroughness of the educational system adopted by Ontario and other Provinces of the Dominion? In addition to the 5,300 public and separate schools through which the poorer and middle classes in every village, town, city and township, may obtain free education, the system of higher education is such that a boy who is the son of poor parents may, by his own talents, rise from the public school even to the university. In connection with some of the principal public schools the Kindergarten system is in force; while the various branches taught apply directly to commercial life, and drawing of an industrial character is made compulsory. All-important, too, are the Provincial Normal and Model schools for preparing young men and women for the teaching profession; the various classical schools designed to furnish a higher English or classical course with modern languages; the University of Toronto, and the University College; the technical schools of practical science, art and agriculture; the schools for the deaf, dumb, and blind; the institutions partly aided by Government, such as local art schools, artists, mechanics, scientific, and entomological institutions; and lastly the universities, colleges and schools not under Provincial control. These combine to form an educational system of no ordinary completeness, and one of which Ontario has every reason to be proud. It is one also from which European countries may learn much in the improvement of parts of their own systems."

## THE EDUCATIONAL COURT OF ONTARIO.

On my arrival in England I found that it was impossible to obtain the space in the Central Court for which we had made application, but Sir Charles Tupper gave me the choice of three different spaces. I selected an area of about 3,000 feet floor space in the western gallery, between the New Zealand Court and the Canadian Machinery Department. This proved to be one of the most popular and attractive sections of the whole exhibition. Agricultural implements, etc., in motion was a novelty to the English people, who assembled in large numbers to witness the labour-saving appliances of this country. These crowds of people had to pass through the Educational Court of Ontario in order to visit the New Zealand Court, and in addition the aquarium was adjoining. The consequence was that our Court was continually crowded,and the probability is that hundreds of thousands of visitors had an opportunity of examining our exhibits who might not have seen them had the Educational Court been situated in some other part of the building.

As the space was limited, galleries and divisions were erected which gave several thousands of feet of wall space; for the protection of apparatus, school work, etc., a large number of glass cases were provided; the walls, archways, etc., were decorated to harmonise with the exhibits, and the *tout ensemble* was such as to draw enconiums from the British press and educational journals.

The following editorial from the *Globe Colonial Exhibition Supplement*, published soon after the opening ceremony, is a good description of the general appearance of our Educational Exhibit :—

"Ontario is justly proud of her educational system; for it not only takes first rank in the Dominion, but will also bear comparison with that of many countries in the Old World. That it was most desirable that adequate evidence should be sent to South Kensington of the good work done by and in the Province in this direction, no argument was needed to show; and the Ontario Government were prompt to recognise, and to endeavor to discharge, the responsibility which devolved upon them. The work of preparing a thoroughly representative and creditable educational exhibit was undertaken with zeal and energy. And, thanks to the enterprise shown by the Provincial Government, to the personal attention given to the task by the Hon. G. W. Ross, Minister of Education, and to the organizing skill and untiring industry of Dr. May, the result is an Educational Court, which is one of the most remarkable features of the Canadian Section, and which has already won high praise from British educational experts.

The Education Department of Ontario, now under the direction of Mr. Ross, controls the Provincial Normal and Model schools; the county model schools; and the public, separate, and high schools and collegiate institutes. In addition, it has a voice in the management of all other educational institutions in the Province which receive Government aid for educational purposes; such, for example, as Upper Canada College, the School of Practical Science, University College, Mechanics' Institutes, Art Schools, etc. In one or more forms all the departments of educational activity are represented at South Kensington. Hence it is not surprising to find that the collection in Dr. May's charge is extremely comprehensive, and occupies to the full the 3,000 feet of space accorded to it. Nor is it a matter for wonder that the special catalogue should form a good sized pamphlet, and should contain a list embracing nearly 3,000 separate entries. Deferring detailed notice of the different divisions of the exhibit, it must suffice on the present occasion to notice briefly its chief features and general arrangement.

The area assigned to Ontario is in the West Gallery, between the New Zealand Court and the space occupied by Canadian agricultural machinery, and immediately adjoining one of the entrances to the Aquarium. From both the New Zealand Section and the machinery gallery, the Ontario Court is separated by artistically designed and decorated archways, which admirably serve the purpose of screens. Above the principal archway—that on the north—the visitor notices at once a large coat of the Royal arms, said, indeed, to be the largest ever exhibited. This is the work of a Torontonian, and was lent from the Educational Court to Sir Charles Tupper, to be placed facing Her Majesty upon her entrance to the Canadian Court on the opening day. Above is a bust of the Marquis of Lorne. On one side of the archway is placed a large photograph of the graduating class of the Ontario Veterinary College, containing some 85 photographs of the students, together with President Smith and the professors. These striking photographs, which attracted the attention of, and were much admired by, the Queen and the Prince of Wales, are supplemented by views of the students' dissecting-room, etc. On the opposite side of the archway, the commercial colleges of the provinces are well represented by specimens of penmanship from Hamilton, Brockville, Owen Sound, etc.

Upon entering the Court, the first thing to strike the eye is the prominently displayed motto, 'Education the Glory of Canada'; whilst on both arches, in equally distinct lettering, are the signs, 'Educational Court, Ontario, Canada.' The rafters supporting the roof are decorated with the maple leaf; and the southern archway, or screen, it should further be mentioned, is decked with shields of Ontario, surmounted with crowns and ornamented with flags. The Court is divided into five compartments on either side, with galleries above, approached by spiral staircases. Only in this way could Dr. May make separate divisions for each Institution and find space for the very numerous specimens of all kinds committed to his care; and the general effect of his arrangements is an appearance of completeness and method which is not to be noticed in any other portion of the Canadian Section.

The place of honor in the centre of the Court is rightly assigned to the Educational Trophy. This consists of twelve statistical charts, representing the educational institutions under the control of the Education Department, and mounted on a 12-faced prism. Above the charts, which are quite 6 feet high by 4 feet wide, are placed photographs of the institutions; and the prism itself is surmounted by a globe 36 inches in diameter, specially colored to show at a glance the extensive territory of Canada. The remainder of the centre of the court is filled with large glass cases, containing philosophical apparatus as used in the Public and High Schools of the Province, including a collection of School Apparatus manufactured by the Map and School Supply Company, Toronto. At the extreme end of the Court are shown astronomical and geographical globes, with plane and raised surfaces, among which we specially notice the Newtonian or Astronomical Globe exhibited by Selby & Co. The anatomical and physiological models also on view here seem to be one of the attractions of the Court, especially the manikin depicting both the external and internal structure of the human body.

The partitions of the side compartments of the Court are surmounted by pedestals supporting busts of distinguished Canadians. Thus the Hon. O. Mowat faces Sir John Macdonald; the Hon. Geo. Brown has the Hon. J. Beverley Robinson as his *vis-a-vis*; the Rev. Dr. Ryerson is opposite to to Sir Francis Hincks; and the Hon. Adam Crooks to Bishop Strachan. As to the contents of the compartments on either side space only permits a few words now being said. About one-half of these contain Maps and Apparatus, the new series of Drawing Books, Text Books, Tablet Reading Lessons, and other school appliances; the remainder being filled with illustrations of Industrial Art. This display does infinite credit to the province and to the efforts of the Government to promote this branch of study, and is calculated even to a greater degree than the Art Exhibit in the Albert Hall to open the eyes of the British public to Canada's artistic progress of recent years. The Ontario School of Art, the Western School of Art, London, and the Ottawa and the Kingston Art Schools send specimens of every class of work—in oil and water-colors, in freehand drawing, industrial designs, architectural and machine drawing, shading from the flat and from the antique, *repoussé* work, chasing in brass, modelling in clay and plaster casts from clay, electro-metallurgy, and carving in wood. Detailed references, as we have said above, are out of the question on the present occasion. But mention must be made of the high opinion expressed by competent authorities of the productions in industrial art: of the interest aroused by the specimens of Examination work in the Elementary subjects, such as Geometry, Perspective and Model Drawing, of the admirable water-colors and painting on china, executed by the students of the London School of Art; and of the excellent general work shown from Toronto, Kingston, and Ottawa.

Various other exhibits in this portion of the Court call for brief notice. An educational map of Ontario, on a rather large scale, has both usefulness and novelty to recommend it. Specially marked to show the number of schools of all kinds and other educational institutions in each county, it conveys at a glance an amount of information which could not be fully grasped in any other way with the same ease. Messrs. Williams and Son, of Toronto, show a school piano and organ, which have deservedly gained the attention of many educationists. The public school cabinet organ in particular so admirably meets 'a long felt want,' that its introduction into this country would be hailed with much satisfaction; for this instrument, while sufficiently powerful for outdoor use, or for any ordinary school-room, is so light that it can be carried from room to room by a child ten years of age, and is sold at an extremely low price. Again, the Kindergarten furniture and materials exhibited are of more than ordinary merit, and the ordinary school furniture shown by several makers has already been made the subject of inquiry by many English scholastic authorities. Visitors of all kinds display interest in the specimens of phonotypy sent by Mr. Simpson, of Leamington; in the new series of reading lessons recently introduced; and in the numerous photographic views of the public schools, high schools, colleges, and universities, Toronto School of Medicine, Ontario Pharmaceutical College, etc. The last named, it should be stated, are all labelled, so as to show plainly the name of the institution and of the city or town in which it is situated. The remarks by visitors upon these photographs, which are again and again overheard, testify to the surprise felt at the beauty, size, and number of the buildings the public spirit and wise enterprise of Ontario have provided for educational purposes.

Proceeding now to the galleries, art is prominent on the walls of the right gallery. Here the contributions come from the Ladies' Colleges, at Woodstock, Hamilton, Whitby, Brantford, and St. Thomas, and are as varied as they are excellent in character. The Loretto Abbey, Toronto, and the Loretto Convent, Hamilton, are also exhibitors, and notably furnish some embroidery, lace-work, and painting on velvet and china, whose beauty, both of design and execution, is unquestionable. But the professional educationist will dwell specially upon the work from the public schools of Toronto and other cities and towns, villages and rural schools, which is exhibited here. As Dr. May points out in his most useful and well-arranged catalogue, the very large number of specimens shown represent the ordinary work done by pupils from seven to fourteen years of age, as follows:—Writing, specimens of general work of 416,588 pupils; arithmetic, specimens of general work of 422,076 pupils; and geography and map drawing of 280,953 pupils. The drawings have been taken from the work in progress in the schools in the middle of the term, and are consequently scarcely a fair example of the improvement which can be made in a full session. Nevertheless, the work done in map drawing, for example, is in many cases of astonishing excellence when the age of the pupil is considered. Especially interesting, too, is the whittling in wood by little children, of which many specimens are shown, from Toronto public Schools, including articles of domestic use, such as knives and forks. And this gallery cannot be left without commending the Kindergarten work in connection with the Model School of Toronto, and the Toronto Public Schools.

In the opposite gallery fitting space has been found for specimens of pupils' work, teaching appliances, photographs, etc., from the Ontario Institutions for the Blind and for the Deaf and Dumb. These are in many ways of exceptional interest. The Agricultural College at Guelph is also strongly represented with very large collections of geological, mineralogical, and botanical specimens, samples of seeds and anatomical models, statistical charts, etc., all of which demonstrate the thoroughly practical and scientific training afforded to the students. The *Institut Canadien* sends from Ottawa a variety of specimens of work in the different branches of art. But art here is principally illustrated by the specimens of Industrial Drawing done in the Mechanics' Institutes in the province, of which there is an extremely interesting display. One or two novelties in this division have in addition to be named, to wit, the model of a dram of timber as prepared for running the St. Lawrence rapids, and exhibited by Mr. Anthony Malone, of Garden Island; the working model of an English locomotive, by Mr. Lacey R. Johnson, of Carleton Place, and a marvellous piece of work by Mr. A. Parker (also of Carleton), consisting of a small ornamental inlaid table, fifteen inches in diameter, composed of 1,100 separate pieces of wood.

Brief as is the foregoing outline of Ontario's Educational Exhibit, enough has been said to indicate its exceptional merit and value, and to prove that the bold motto, 'Education the Glory of Canada,' is—in the *premier* province at least—fully justified by the work done in the past, and by the promise held out for the future. Having put their hand to the plough in this matter, Canadians are not likely to turn back. And they are to be congratulated upon the circumstance that the enterprise of the Ontario Government, and the success with which their Commissioner at South Kensington has discharged his duties, have enabled the British public to grasp these facts more clearly and fully than was ever possible before."

As soon as the work of installation was completed, a list of the exhibits was put in the hands of the printer, and a catalogue of 76 pages, containing nearly 3,000 separate exhibits, was published. The numbers on the catalogue corresponded with the numbers on the labels attached to the exhibits. Five thousand catalogues were distributed. In addition to the Educational Catalogue, the Canadian Catalogue contains a list of our exhibits, which occupied 25 pages. The Official Catalogue also devoted several columns to our exhibits.

The following is a copy of the Educational Catalogue in a condensed form :—

## CATALOGUE.

The Education Department of Ontario, under the direction of the Hon. Geo. W. Ross, LL.B., M.P.P., Minister of Education, controls the Provincial, Normal, and Model Schools ; County Model Schools ; Public, Separate and High Schools, and Collegiate Institutes ; also, Upper Canada College, School of Practical Science, University College, Toronto University, Educational Museum, and Art Schools, Mechanics' Institutes, and all other Institutions receiving Government aid for Educational purposes in the Province of Ontario.

## PART I.

## NORMAL AND MODEL SCHOOLS, PUBLIC AND HIGH SCHOOLS, AND COLLEGIATE INSTITUTES.

### Class 1.—Historical and Statistical.

Annual Reports of the Normal and Model, High and Public Schools of Ontario, from 1845 to 1885.
Special Educational Reports, 1868 to 1876.
Journal of Education for Ontario, from 1848 to 1877.
Statutes and Regulations respecting Public and High Schools, 1885.
Revised Statutes of Ontario, 2 vols.
Ontario Educational Exhibit at Philadelphia in 1876, by J. G. Hodgins, LL.D., Deputy-Minister.
Catalogue of the Museum of the Education Department of Ontario, by S. P. May, M.D., Superintendent.
Educational Trophy, consisting of 12 Statistical Charts, each 6 feet by 4 feet, with large Photographs of Buildings mounted on a 12-faced prism, surmounted by a cylinder, supporting a 36-inch Globe so colored as to show the extensive territory of Canada.
The Charts are as follow :—
- Progress of the Public Schools of Ontario in forty years.
- Progress of the Collegiate Institutes and High Schools in twenty-five years.
- Statistics for 1886 of County Model Schools, Training Institutes, and Teachers' Institutes.
- Statistics for 1886 of the Ontario School of Art, Education Department, Toronto.
- Statistics for 1886 of the Mechanics' Institutes and Free Public Libraries in Ontario.
- Statistics for 1886 of University College and the University of Toronto.
- Statistics for 1886 of the School of Practical Science, Toronto.
- Statistics of Upper Canada College, Toronto.
- Statistics of Ontario Agricultural College, Guelph.
- Statistics of Ontario Institution for the Education of the Blind, Brantford.
- Statistics of Ontario Institute for the Deaf and Dumb, Belleville.

Map of the Province of Ontario, showing the Public Schools, Separate Schools, High Schools, Collegiate Institutes, Universities and Colleges.

*Grip Publishing Company, Toronto.*

Education Weekly, from July to December, 1885.

### Class 2.—School Method and Organization.

Public School Daily Register for recording the Attendance of Pupils.
Register of Daily Attendance, etc., in High Schools and Collegiate Institutes.
Honor Rolls for High and Public Schools.
Examination Papers for Provincial Certificates, Entrance Examinations, etc.
Text Books on the History and Science of Education.
Manual of Hygiene for Schools and Colleges, Education Department, Toronto.
Scripture Readings for High and Public Schools, authorized by the Education Department.

### Class 3.—School Architecture and Photographs of School Buildings.

Hints and Suggestions on School Architecture and Hygiene, with 75 Plans and Illustrations, for the use of School Trustees in Ontario, prepared under the direction of the Hon. the Minister of Education, by J. Geo. Hodgins, LL.D., Deputy-Minister.

*Photographs of Schools, Colleges, etc.*

*Normal and Model Schools :—*

Normal and Model Schools, Toronto.
Do. do. Ottawa.

*Public Schools :—*

Brantford—Central School, East Ward School, North Ward School, King's Ward School.
Goderich—Central School, Public School.
Hamilton—Public School, Ward Public School.
Ingersoll—Central School.
London—Central School, Hamilton Road School, Princess Avenue School, Rectory Street School.
Morrisburg—Public School.
Napanee—Public School.
Ottawa—Central School, Central Public School (East), Victoria Ward Primary School.
Peterborough—Roman Catholic Separate School for Boys.
Toronto—Ryerson Street School, Wellesley Street School, Dufferin Street School, Hope Street School, Victoria Street School, Jesse Ketchum School, Bolton Avenue School.
Woodstock—Central Public School.

*Indian Schools :—*

Sault Ste. Marie—Shingwauk Home for Indian Boys.
Do. Wananosh Home for Indian Girls.

*Union High and Public Schools:—*

Belleville, Port Perry.

*High Schools:—*

Goderich, Morrisburg, Stratford, Woodstock.

*Collegiate Institutes:—*

Brantford, Guelph, Ingersoll, Ottawa, Peterborough, St. Catharines, Toronto.

### CLASS 4.—SCHOOL FURNITURE AND FITTINGS.

*Bennet Furnishing Company, London.*

Style A Bennet Desk and Seat, 3 sizes; Style B Bennet Desk and Seat, 3 sizes; Bennet Grammar School Locked Desk.

*W. Stahlschmidt, Preston.*

Teacher's Desk, Marvel School Desk; Single Rear Seat for same; Marvel School Desk, 4 sizes; Model School Desk, Improved Favorite School Desk.

*Map and School Supply Company, Toronto.*

(See also Map and Apparatus Departments.)

Numeral Frame, with Blackboard; Numeral Frame on Stand; Sheepskin Eraser for Blackboard; Fluted Eraser for Blackboard.

### CLASS 5.—KINDERGARTEN MATERIAL.

*Selby & Co., Toronto.*

(See also Drawing Models.)

Kindergarten Tables, with tops marked in inch squares; Kindergarten Chairs, (6 Chairs colored to represent the primary colors); Kindergarten Toys, etc,

### CLASS 6.—PHYSICAL EDUCATION.

Maclaren's Physical Education.

Gymnasium, with the necessary Apparatus to perform the Gymnastic Exercises in Movements and Positions, Exercises of Progression, etc., Dumb Bells, Indian Clubs.

### CLASS 7.—TEXT-BOOKS.

Authorized for use in Public Schools in following Subjects (for list see Special Catalogue):—

Reading and English Literature, 8 vols.; Book-keeping, 2 vols.; Arithmetic, 4 vols.; Geography, 7 vols.; Grammar and Composition, 7 vols.; History, 4 vols.; Algebra, 4 vols.; Geometry, 3 vols.; Chemistry and Agriculture, 2 vols.; Natural

Philosophy, 4 vol.; Elementary Physics, 3 vols.; Agriculture, 1 vol.; Music, 1 vols.; Drawing, 5 vols.

*Copp, Clark & Co., Toronto.*

Readers authorized by the Minister of Education.
First Book mounted on cards.
Reading Lessons to accompany First Book mounted on cards.
Mercantile Graded Copy Books.

*Canada School Publishing Company, Toronto.*

Coleridge's "Ancient Mariner" and selected Minor Poems.
Ayres' and Armstrong's Verbalist.
Ayres' and Armstrong's Orthoëpist.
Swinton's Language Lessons.
Williams' Composition and Practical English.
Jeffers' History of Canada.
Thompson's History of England.
Collier's History of British Empire.
Morrison's Trigonometry.
Royal Canadian Readers.
Beatty's Ontario Writing Course.
Tuft's and Preston's Public and High School Music Readers.
Canadian Drawing Course, 5 books.
Set of Charts for Drawing Books.
Set of Drawing Books mounted in frames.

*Warwick & Sons, Toronto.*

Physical Culture, by E. B. Houghton.
School Management, by Baldwin and Dawson.
English Literature for High Schools.

Text-Books authorized for use in High Schools and Collegiate Institutes in following subjects (for list see Special Catalogue) :—
English, 14 vols.; Latin, 8 vols.; Greek, 7 vols.; French, 11 vols.; German, 4 vols.; Mathematics, 18 vols.; History, Geography and Antiquities, 17 vols.; Physical Science, 17 vols.; Miscellaneous 10 vols.

## Class 8.—Reading Charts, &c.

*Copp, Clark & Co., Toronto.*

Reading Lessons to accompany authorized series of Reading Books.
Calkin's Phonetic Charts for Self-Training in the Sounds of Language.

*Caleb P. Simpson, Leamington.*

Set of 11 Tabulated Phonetic Alphabet Charts.

## CLASS 9.—DRAWING MODELS, &C.

Set of Drawing Models. (Department of Science and Art.)
Set of Geometrical Drawing Models.
Model of Bridge, Door and Steps, Step-Ladder, Gate, Well, House, etc.
Models of Fruit, beautifully colored from nature.
Terra-cotta Models of Fruit, Leaves, etc.
Bail's Drawing Charts (set of 19.)

*Selby & Co., Toronto.*

(See School Furniture.)

Primary Drawing Models, Canadian Drawing Models, Geometrical Figures.

## CLASS 10.—MUSIC.

*R. S. Williams & Son, Toronto.*

Public School Cabinet Organ, solid black walnut case, three and quarter octaves, having one set of reeds thoroughout, with double bellows, two blowing pedals and knee swell.

This instrument is sufficiently powerful for out-door exercises, or for any ordinary schoolroom, and is so light that it can be carried from room to room by a child ten years of age.

Public and High School Piano, walnut oil finished case.

*Canada School Publishing Company, Toronto.*

(See also Text-Books and Drawing.)

Tuft's and Preston's Public School Music Reader.
Tuft's and Preston's High School Music Reader.
Normal Music Course, first series (20 large charts printed on both sides.)

## CLASS 11.—GEOGRAPHY AND ASTRONOMY.

*Topographical Illustrations—Terrestrial Globes :—*
30-inch Terrestrial Globe.
18-inch do bronze pedestal stand.
12-inch do bronze frame.
6-inch do brass frame.
5-inch Terrestrial Hemisphere Globe.
3-inch do do.

*Raised and Physical Globes :—*
12-inch Physical Globe.
15-inch Raised Globe.
18-inch do

*Maps, etc :—*
Johnston's England, Ireland, Scotland, British Isles and Australia.
Nelson's British America, Palestine and Lands of the Bible.
Departmental Maps of Palestine and Bible Lands.

*Raised Maps :—*
North America.
Map of Europe.
Map of Italy.
Greciæ Antiquæ.

### *Map and School Supply Company, Toronto.*

School Maps (see also Apparatus and School Furniture Departments)—Europe, Asia, Africa, America, Dominion of Canada and Ontario.

Map Case containing 5 Maps.

### *Canada School Publishing Company, Toronto.*

Hughes' Railway Map of Ontario.

*Astronomical Illustrations—Celestial Globes, Orreries, etc*:—

18-inch Celestial Globe.
12-inch Celestial Globe.
Solar Telluric Globe.
Juvet's Time Globe.
Ginn's 6-inch Astronomical Globe.
Swain's Planetarium.
Planetarium High Stand.
Planetarium Low Stand.
Brass-ground Tellurian.
The Heliotellus.
The Lunatellus.
Tide Dial.
Bailey's Astral Lantern.
Astronomical Lantern.

### *Selby & Co., Toronto.*

Newtonian or Astronomical Globe.

*Astronomical and Physical Maps and Charts*:—

Johnston's Solar System.
do Astronomical Diagrams.
Astronomical Charts (set of 16.)
Drew's Astronomical Charts (set of 12.)
Reynolds' Astronomical Geography.
do Chart, Distribution of Rain.
do Principal Rivers of the World.
Guizot's Mural Map of North America.

## CLASS 12.—CHRONOLOGY.

Chronological Chart of Ancient History.

Genealogical and Chronological Chart of the History of England.

Genealogical Chart of the Sovereigns of England, showing their respective titles to the Crown.

Historical Chart, showing the rise, progress, and decline of Commercial Nations, 1506 B. C. to A. D. 1870.

Merritt's Historic Tree of British North America.

Nasmith's Chronometrical Chart of the History of England.

Genealogical Tree of the Royal Family of Great Britain.

## CLASS 13.—ETHNOGRAPHY.

*Portrait Busts of Distinguished Canadians* (from the Educational Museum) :—

Marquis of Lorne, Governor-General of Canada from 1878 to 1882.

His Honor John Beverley Robinson, Lieutenant-Governor of Ontario, born 1820.

Right Hon. Sir John A. Macdonald, G.C.B., Premier of Dominion of Canada, born 1815.

Hon. Oliver Mowat, Q.C., Premier of Ontario, born 1820.

Hon. George Brown, Senator, born 1818, died 1880.

Sir Francis Hincks, K.C.M.G., born 1807, died 1885.

Hon. T. D'Arcy McGee, M.P., born 1825, died 1868.

Rev. Egerton Ryerson, D.D., L.L.D., Chief Superintendent of Education, born 1803, died 1880.
Hon. Adam Crooks, first Minister of Education for Ontario, born 1827, died 1886.
Right Reverend John Strachan, D.D., L.L.D., first Bishop of Toronto, born 1778, died 1867.
Portraits of Indians (set of 58, colored.)

### CLASS 14.—ANATOMY AND PHYSIOLOGY.

*Models :—*

Manikin—a model of the Human Body, showing both external and internal structure.
Thorax, showing organs of circulation, respiration, etc.
Head and Neck (3 models).
Brain (4 models).
Ear, enlarged, showing its structure.
Lower Jaw, enlarged, showing teeth, nerves, arteries, etc.
Skin, enlarged, showing epidermis, perspiratory glands, arteries, nerves, etc.
Heart, enlarged and movable, showing valves, etc.
Tongue and Epiglottis.
Larynx (2 models).
Bones of Foot, Hand, Elbow Joint- Shoulder Joint, Knee Joint, and Hip Joint.

*Anatomical and Physiological Charts :—*

Fiedler's Anatomical Charts (set of 4).
Marshall's Physiological Diagrams (set of 9).
Johnston's Anatomical and Physiological Charts (set of 2).

### CLASS 15.—ZOOLOGY.

*Audubon's Animals of North America* (chiefly of the natural size) beautifully colored from nature, with common and technical names.

*Zoological Diagrams :—*

Patterson's Zoological Diagrams (set of 10).
Johnston's Illustrations of Natural History (set of 5).
Redfield's General View of the Animal Kingdom.
Simonson's Circular Zoological Chart.
Hawkins' Extinct Animals (set of 5).
Christian Knowledge Society, Comparative sizes of Animals.

*Normal and Model Schools, Ottawa.*

Collection of Corals.

### CLASS 16.—BOTANY.

*Botanical Charts :—*

Henslow's Botanical Charts.
Departmental Set of Botanical Plates.
Johnston's Botanical Charts.
Vegetable Kingdom—Flowering plants or Phanerogamia, and Flowerless Plants or Cryptogamia (set of 70).
Apparatus for Collecting Plants.
Set of 45 Colored Botanical Plates to illustrate Order Orchidaceæ.

Set of 28 Models of Flowers, which can be taken apart to illustrate Physiological Botany.
Set of 90 Object Lessons from Vegetable Kingdom.

## CLASS 17.—GEOLOGY AND MINERALOGY.

*Geological Charts :—*

Reynolds' Table, showing the order of succession of Stratified Rocks.
Reynolds' Table of British Strata.
Morris's Geological Chart.
Set of Models of Crystals in glass.
Set of Models of Crystals exemplifying the primary forms.

## CLASS 18.—PHILOSOPHICAL CHARTS.

Johnston's Philosophical Charts (set of 7).

## CLASS 19.—PHYSICAL AND CHEMICAL APPARATUS.

*Matter, Force, and Motion :—*

Mercury Tube and Cup for Porosity.
Inertia Apparatus.
Apparatus for illustrating Curvilinear Motion,
Bent Lever.
Double Inclined Plane.
Collision Balls.
Model of Screw.
Model of Lock.
Gyroscope.
Centrifugal Machine.
Set of Mechanical Powers.

*Gravitation and Molecular Attraction :—*

Centre of Gravity Apparatus.
Physical and Chemical Balance, in glass case.
Guinea and Feather Apparatus.
Coulomb's Torsion Balance.

*Hydrostatics :—*

Haldat's Liquid Pressure Apparatus.
Equilibrium Tubes.
Capillary Tubes.
Apparatus to illustrate Spouting of Fluids.
Hydraulic Ram.
Hydraulic Press with lever.
Bramah Press.
Cartesian Divers.
Hydrometers.
Specific Gravity Flasks.
Model of Archimedes Pump.
Under and Overshot Wheel.

*Properties of Gases :—*

Air Pump with two glass cylinders, syphon gauge, and bell glass receiver, mounted on a table.
Air Pump with brass cylinder.
Condensing Syringe.
Copper Globe for Exhaustion to form Fountain.
Model of Suction or Lifting Pump.
Model of Force Pump.
Magic Funnel.
Transfer Jar for Exhaustion under Bell Glass.
Fountain in Vacuo, with Jet, etc., for producing an Artificial Fountain.
Magdeburg Hemispheres.

Daniell's Hygrometer.
Reynolds' Chart of Barometer.
Marriotte and Boyle's Instrument for Measurement of the Elastic Forces of Gases.
Apparatus for Mixture of Gases and Liquids.

*Acoustics*:—
Bell in Glass Globe to show that sounds are not produced in vacuo.
Sliding Rod and Ball, with Glass Receiver.
Water Hammer.

*Heat*: (see also Chemical Apparatus):—
Tyndall's Apparatus—Multiplying Wheel.
Ingenhouz's Apparatus.
Tyndall's Apparatus to show Unequal Expansion of Metals.
Gravesande's Ball and Ring Pyrometer.
Ferguson's Pyrometer.
Wollaston's Cryophorus.
Differential Thermometer.
Gridiron Pendulum.
Franklin's Experiment (Pulse Glass).
Radiometer.
Psychrometer (Wet Bulb Thermometer).
Thermo-electric Battery or Pile.
Mellom's Thermo Multiplier with concave reflector.
Concave Reflectors.
Model of Locomotive Engine.
Model of Beam Engine and Boiler.
Miniature Working Model of Steam Engine.

*Light*:—
Large Binocular Microscope with movable diaphragm, fine adjustment, two sets of eye-pieces, nine objectives, achromatic condenser, rotating prism, etc., etc.
Public School Microscope for Botanical purposes.
Magic Lantern with 3½-in. lenses.
Polarising Apparatus for Magic Lantern.
Solar Lantern.
Photogenic Lantern for Electric Light Apparatus.
Condensing Lenses.
Terrestrial Telescope on Stand.
Davey's Safety Lamp.
Revolving Disc for Decomposition of Light.
Camera Obscura.
Kaleidoscope.
Oxy-hydrogen Lamp.

*Magnetism*:—
Inclination Compass for Measuring the Magnetic Inclination or Drop.
Horse-shoe Magnets.

*Frictional Electricity*:—
Carre's Electrical Machine.
Plate Electrical Machine.
Holtz's Electrical Machine.
Electrophorus, glass handle.
Electric Battery of Leyden Jars.
Electrical Discharger, Electrical Plate, Electrical Orrery, Electrical Sportsman, Electric Egg, Electrical Vane, Electric Head of Hair, Electric Pistol.

Cuthbertson's Balance Electrometer.
Dancing Image Plates.
Glass Globe for Dancing Images.
Coulomb's Ellipsoid (see Heat).
Apparatus for Light in Vacuo.
Illuminated Egg Stand.
Globe for Electric Spark.
Diamond or Luminous Jars.
Leyden Jars.
Spiral or Spotted Tubes.
Harris's Unit Jar.
Thunder House.

*Dynamical Electricity:*—

Bunsen's Battery.
Carbon Battery.
Grove's Battery.
Smee's Battery.
Decomposition of Water Apparatus.
Electric Magnetic Bell.
Electric Pump.
Electro-magnetic Machine.
Electrotyping Apparatus.
Geissler's Tubes.
Apparatus for revolving Geissler's Tubes.
Mirror for Geissler's Tubes.
Hoffman's Apparatus for Electrolysis.
Helix and Bar.
Large Ruhmkorff Coil.
Commutator or Contact Breaker for ditto.
Ruhmkorff Coil with commutator.
Oersted's Galvanometer.
Stand for Carbon Points for Electric Light.
Revolving Electro Magnet.
Revolving Armature and Magnet.
Model of Electric Telegraph with index.
Model of Electric Telegraph for Sound.
Home and School Telegraph.
Telegraph with Paper Reel.
Mariner's Compass.

*Chemistry:*—

School Laboratory.
Apparatus for Experiments with Gases.
Apparatus for applying Heat.
Miscellaneous Chemical Apparatus.

*Map and School Supply Company, Toronto.* (See also School Furniture and Map Departments.)

Public School Air Pump.
Bell Glass for ditto.
Air Pump with 6-inch plate.
Bell Glass for ditto.
Guinea and Feather Apparatus.
Magdeburg Hemispheres.
Model of Lifting Pump.
Model of Force Pump.
Ramsden's Electrical Machine.
Leyden Jars.
Spiral or Spangled Tubes.
Electrical Discharger.
Dancing Image Plates.
Electrical Flier.
Electrical Pendulum.
Insulating Stool.
Electrolysis Apparatus.
Induction Cylinders.
Gyroscope.
Archimedes Principle.
Conductometer.
Ball and Ring Pyrometer.

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## CLASS 20—PUPILS' WORK—KINDERGARTEN.

Pupils' Work.—*Provincial Model School, Toronto.* Conducted by Miss Hailman.

*Beads* (Miss Hailman's 2nd gift):—Examples to show Color, Form, Color and Form.

*Chains:*—Examples in Straws, Papers and Links.

*Stick-laying:*—Examples of same.

*Parquetrie:*—Examples of Tablet-laying.

*Folding—Forms of Cognition:*—Examples of Square Folding (1st School); Oblong Folding (2nd School); Triangular Folding (3rd School); Geometrical Folding; Groups of Geometrical Folding.

*Weaving Mats:*—Examples to illustrate Color, Form, Color and Form.

First Steps in Invention (Miss Hailman's Baby Mats.)

*Cutting and Pasting*:—Simple School, founded on square inches.
*Sewing*:—Set of Bradley's Sewing Cards.
*Freehand Weaving*:—Examples of Cards and Baskets.
*Interlacing*:—Examples of Interlacing,

### *Kindergarten Work, Toronto Public Schools.*

I. Exhibit of Training Class, conducted by Mrs. James L. Hughes.

| | Specimens |
|---|---|
| Paper Cutting and Pasting—(*a*) Designs from the Square | 20 |
| (*b*) " " Hexagon | 20 |
| Free Cutting | 5 |
| Mat Weaving—(*a*) Regular Weaving | 40 |
| (*b*) Original Symmetrical Patterns | 9 |
| (*c*) Woven Pictures | 9 |
| Sewing—(*a*) Picture Sewing | 9 |
| (*b*) Symmetrical Designs | 9 |
| Paper Folding—One-inch square Foldings, grouped to form a Tea Set. | 5 |
| Paper Interlacing | 20 |
| Perforating—Embossed Designs | 16 |

II. Children's Work.

| | |
|---|---|
| Mat Weaving—(*a*) Counting Patterns | 24 |
| (*b*) Form Patterns | 12 |
| Free Weaving | 20 |
| Paper Folding | 21 |
| Sewing—Picture Cards | 30 |
| Perforating—(*a*) Picture Outlines | 20 |
| (*b*) Symmetrical Designs | 9 |

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## CLASS 21.—PUPILS' WORK—PUBLIC AND SEPARATE SCHOOLS.

(Number of Schools in operation, 5,316.)

This section of the Catalogue represents the ordinary work done by children from 7 to 14 years of age in the following departments:—

| | |
|---|---|
| Writing: | Specimens of general work of 416,588 pupils. |
| Arithmetic: | " " 422,076 " |
| Geography: | " Map Drawing of 280,953 " |

Map Drawing is taught simultaneously with the Text-Books in Geography,

Drawing: Specimens of Drawing-Books and Drawings, general work of 245,821 pupils.

The names of Schools only are given; for details see Special Catalogue.

### I.—COUNTIES.

*Brant Co.* (Pupils' Work).
Mount Pleasant.
*Carleton Co.* (Pupils' Work).
S.S. 2 Goulbourn.
S.S. 4 Goulbourn.
S.S. 4 Gower, N.
S.S. 5 Huntley.
S.S. 3 Nepean.
S.S. 4 Nepean.

*Dundas Co.* (Pupils' Work).
S.S. 1 Inkerman.
S.S. 9 Matilda.
S.S. 7 Mountain.
S.S. 18 Mountain.
S.S. 4 Williamsburg.
S.S. 9 Williamsburg.
S.S. 12 Williamsburg.
S.S. 22 Williamsburg.

## I.—Counties.—*Continued,*

*Dundas Co.* (Pupils' Work).
S.S. 1 Winchester.
S.S. 2 Winchester.
S.S. 4 Winchester.
*Durham Co.* (Pupils' Work).
S.S. 2 Cavan.
*Essex Co.* (Pupils' Work).
S.S. 2 Colchester, N.
S.S. 2 Colchester, S.
S.S. 4 Gosfield.
S.S. 2 Malden.
*Frontenac Co.* (Pupils' Work).
S.S. 7 Portland.
*Halton Co.* (Pupils' Work).
S.S. 6 Esquesing.
S.S. 10 Esquesing.
S.S. 11 Esquesing.
S.S. 5 Nassagaweya.
S.S. 6 Nelson.
S.S. 12 Nelson.
S.S. 5 Trafalgar.
S.S. 10 and 18 Trafalgar.
S.S. 11 Trafalgar.
S.S. 14 Trafalgar.
*Haldimand Co.* (Pupils' Work).
S.S. 6 Caledonia.
S.S. 2 Canboro'.
S.S. 5 Cayuga, S.
Decewsville.
S.S. 2 Dunn.
S.S. 4 Dunn.
Hagarsville.
S.S. 2 Moulton.
S.S. 6 Seneca.
Springvale.
S.S. 1 Walpole.
S.S. 6 Walpole.
S.S. 16 Walpole.
York.
*Hastings Co.* (Pupils' Work).
Plainfield.
S.S. 6 Sidney.
S.S. 11 Thurlow.
*Huron Co.* (Pupils' Work).
Blyth.
*Kent Co.* (Pupils' Work).
S.S. 2 Chatham
S.S. 7 Chatham.
S.S. 12 Chatham.
S.S. 2 Dover.
S.S. 13 Dover.
S S. 7 Raleigh.
S.S. 9 Raleigh.
S.S. 1 Romney.
S.S. 3 Romney, N.

*Kent Co.* (Pupils' Work).
S.S. 2 Tilbury, E.
S.S. 4 Tilbury, E.
*Lambton Co.* (Pupils' Work).
S.S. 2 Euphemia.
S.S. 2 Warwick.
*Lanark Co.* (Pupils' Work).
Fullbrook.
*Leeds* (Pupils' Work).
Delta.
Farmersville.
*Lennox and Addington Cos.* (Pupils' Work).
Big Creek.
S.S. 3 Camden.
S.S. 6 Camden.
S.S. 4 Ernestown.
S.S. 6 Ernestown.
Hamburg.
Millhaven.
Morven.
Napanee Mills.
Odessa.
*Lincoln Co.* (Pupils' Work).
S.S. 7 Caistor.
S.S. 2 Gainsboro'.
S.S. 10 Gainsboro'.
S.S. 5 Grantham.
S.S. 2 Louth.
S.S. 3 Louth.
S.S. 4 Louth.
S.S. 4 Niagara.
S.S. 6 Niagara.
*Middlesex, E., Co.* (Pupils' Work).
S.S. 3 Biddulph.
S.S. 4. Dorchester.
S.S. 19 London.
S.S. 22 London.
S.S. 2 Nissouri, W.
Odell's, Westminster.
Oneida Indian School.
S.S. 2 Westminster.
S.S. 17 Westminster.
*Norfolk Co.* (Pupils's Work).
Waterford.
*Ontario Co.* (Pupils' Work).
S.S. 4 Mara.
Manilla.
S.S. 1 Whitby, E.
*Prince Edward Co.* (Pupils' Work).
S.S. 10 Ameliasburg.
S.S. 2 Athol.
S.S. 5 Athol.
Consecon.
S.S. 10 Hillier.

## I.—COUNTIES—*Continued.*

*Prince Edward Co.* (Pupils' Work).
S.S. 2 Marysburg, N.
Milford.

*Renfrew Co.* (Pupils' Work).
S.S. 2 Algona, N.
S.S. 3 Algona, S.
S.S. 1 Alice.
S.S. 6 Alice.
S.S. 3 Bagot.
S.S. 5 Bagot.
S.S. 2 Bromley.
S.S. 2 Brudenell.
Forester's Falls.
S.S. 2 Grattan.
S.S. 8 Grattan.
S.S. 2 Horton.
S.S. 10 McNab.
S.S. 13 McNab.
S.S. 2 Petawawa.
Rankin.
Rockingham.
S.S. 4 Ross.
S.S. 9 Ross.

*Simcoe Co.* (Pupils' Work).
S.S. 1 Adjala.
S.S. 5 Adjala.
S.S. 6 Adjala.
Bondhead.
S.S. 1 Essa.
S.S. 4 Essa.
S.S. 5 Essa.
S.S. 6 Essa.
S.S. 8 Essa.
S.S. 10 Essa.
S.S. 11 Essa.
S.S. 15 Essa.
S.S. 1 Gwillimbury, West.
S.S. 4 Gwillimbury, West.
S.S. 16 Gwillimbury, West.
S.S. 6 Innisfil.
S.S. 8 Innisfil.
S.S. 10 Innisfil.
S.S. 11 Innisfil.
S.S. 13 Innisfil.

*Simcoe Co.* (Pupils' Work).
S.S. 1 Medora.
S.S. 4 Tecumseth.
S.S. 8 Tecumseth.
S.S. 9 Tecumseth.
S.S. 17 & 13 Tecumseth and Essa.
S.S. 2 Tossorontio.
Tottenham.
S.S. 1 Watt.

*Waterloo Co.* (Pupils' Work).
S.S. 19 Dumfries, N.
S.S. 25 Dumfries, N.
S.S. 5 Waterloo.
S.S. 17 Waterloo.

*Welland Co.* (Pupils' Work).
Port Robinson.

*Wellington Co.* (Pupils' Work).
S.S. 3 Eramosa.
S.S. 13 Erin.
S.S. 1 Garafraxa, W.
S.S. 9 Garafraxa, W.
Glenallan.
S.S. 1 Guelph.
S.S. 4 Guelph.
S.S. 4½ Guelph.
S.S. 6 Guelph.
S.S. 1 Luther West and Garafraxa W.
S.S. 12 Minto.
Parker.
S.S. 4 Pilkington.
S.S. 5 Pilkington.
S.S. 1 Puslinch.
S.S. 2 Puslinch.
S.S. 4 Puslinch.
Salem.
Speedside.

*York Co.* (Pupils' Work).
S.S. 4 Gwillimbury, E.
S.S. 4 King.
Pottageville.
S.S. 3 Vaughan.

## II.—CITIES (Pupils' Work).

Belleville.
Brantford Central Sch.
Hamilton.
London Sep. Sch.
Ottawa Sep. Sch.
St. Catharines Sep. Sch.
Stratford.
Toronto.
Toronto Sep. Sch.

## III.—TOWNS (Pupils' Work).

Amherstburg.
Brockville.
Berlin.
Listowel.
Milton.
Napanee.

### III.—TOWNS (Pupils' Work)—*Continued.*

Bowmanville.
Bowmanville Union Sch.
Blenheim.
Barrie.
Brampton.
Chatham Central Sch.
Cornwall Sep. Sch.
Newmarket.
Pembroke.
Port Hope.
Picton.
Port Hope.
Port Hope Union Sch.
Trenton.

### IV.—VILLAGES (Pupils' Work).

Alliston.
Arnprior.
Bath.
Burlington.
Caledonia.
Carleton Place.
Drayton.
Dunnville.
Fergus.
Gananoque.
Gravenhurst.
Hespeler.
Iroquois.
Leamington.
London West.
Newcastle.
Newboro'.
Preston.
Port Dalhousie.
Richmond.
Stirling.
Uxbridge.
Wellington.

### PROVINCIAL NORMAL AND MODEL SCHOOLS (Pupils' Work).

Toronto Normal School.
Do Model School.
Ottawa Normal School.
Do Model School.

### HIGH SCHOOLS AND COLLEGIATE INSTITUTES (Pupils' Work).

Aylmer.
Belleville.
Bradford.
Brockville.
Caledonia.
Chatham.
Fergus.
Gananoque.
Hamilton.
Kemptville.
Kincardine.
London.
Morrisburg.
Orangeville.
Owen Sound.
Parkhill.
Port Perry.
Port Dover.
Picton.
St. Thomas.
St. Mary's.
Stratford.
Strathroy.
Streetsville.
Whitby.
Woodstock.

## PART II.

## MECHANICS' INSTITUTES.

Specimens of Examination Papers on Drawing, from the following Mechanics' Institutes:—

Aurora.
Ailsa Craig.
Almonte.
Arnprior.
Barrie.
Brantford.
Berlin.
Blyth.
Brockville.
Carleton Place.
Cheltenham.
Claude.
Durham.
Elora.
Galt.
Garden Island.
Georgetown.
Goderich.
Guelph.
Kemptville.
Mount Forest.
Milton.
Midland.
Mitchell.
Newmarket.
Napanee.
Orangeville.
Orillia.
Paris.
Parkhill.
Perth.
Peterboro'.
Port Perry.
Prescott.
Preston.
Penetanguishene.
Richmond Hill.
St. Catharines.
Schomberg.
St. George.
St. Mary's.
Seaforth.
Stouffville.
Smith's Falls.
Strathroy.
Stratford.
Streetsville.
Whitby.
Woodstock.

### *Association of Mechanics' Institutes for Ontario.*

*W. Edwards (Secretary of Association), Toronto.*

Roll and Record Books.—Accession Books.

### *Carleton Place Mechanics' Institute.*

Pupils' Work.—Machine Drawing, etc.

*Lacey R. Johnson, Carleton Place.*

Working Model of English Locomotive Engine, made to scale of one inch to the foot.

*A. Parker, Carleton Place.*

Ornamental Inlaid Wood Table.

*Jas. McVety, Carleton Place.*

Model of Dwelling House or Shanty, as built by the early settlers in Canada.

### *Guelph Free Library.*

*J. O'Brien, and students, Guelph.*

Ornamental Carving in Wood.

### *Garden Island Mechanics' Institute.*

*Archd. Cumming, Garden Island.*

Working Model of a Harbour Tug Steam Engine.

*Anthony Malone, Garden Island.*

Model of a Dram of Timber, as prepared for running the Rapids of the River St. Lawrence.

### *Galt Mechanics' Institute.*

Machine Drawing.

### *Milton Mechanics' Institute.*

Freehand Drawing.

### *Port Perry Mechanics' Institute.*

Freehand Drawing.
Linear Perspective.
Practical Geometry.
Geometry and Perspective.
Mechanical Drawing.
Shading from the flat.

### *Whitby Mechanics' Institute.*

Freehand Drawing-
Perspective.
Shading from the round.
Outline from the round.

### *Mechanics' Institutes and Branch Art Schools.*

Reynolds' Chart of Condensing Steam Engine, Locomotive Engine, Oscillating Marine Engine, Marine Engine, Marine Paddle Engine, Marine Screw Engine, High Pressure Engine, Coal Mining, Cotton Plant and its Cultivation, Distilling, Electric Telegraph, Fire Engine, Flour Mill, Gas Metre, Hydraulic Press, Paper Machine, Printing Machine, Pumps, Mechanism of Clocks, Mechanism of Watch, Manufacture of Coal Gas.

Mabrun's Turbine Wheel.

Examples of Machine Details (set of 16). Department of Science and Art.

Sopwith's Surveying Diagrams.

## PART III.

## ART SCHOOLS.

### *Ontario School of Art, Toronto.*

Freehand Drawing.
Drawing from Models.
Practical Geometry.
Linear Perspective.
Industrial Design.
Design for Paper Hanging—Competitions for a Silver Medal, presented by the Ontario Manufacturers' Association.
Machine Drawing.
Architectural Drawing.
Shading from the Flat.
Charcoal from Life.
Shading from Antique.
Water Colors.
Oil Paintings.
Chasing in Brass.
Repoussé Work.
Sculpture in Marble.
Electro-metallurgy.
Modelling in Clay, and Plaster Casts from Clay.
Carving in Wood.

### *London Art School.*

Specimens of Elementary Papers—Grades, A. & B.
Machine Drawing, etc.
Industrial Designs (Original).
Shading from Casts.
Crayon Drawings from the flat.
Pen and Ink Drawing.
Oil Painting.
Water Colors.
Models in Clay and Plaster.
Models in Clay.
Plaster Models.
Paintings on China.

### *Ottawa Art School.*

Specimens of Examination Papers in Grades A. & B.
Freehand Drawing.
Mechanics' Practical Geometry.
Practical Perspective Diagrams.
Mechanical Drawing.
Original Industrial Designs.
Industrial Designs—Competitions for Silver Medal offered by the Ontario Manufacturers' Association.
Shading from the "Round."
Life Studies.
Water Colors.
Oil Paintings.

### *Ottawa Normal School.*

*R. H. Whale.*

Oil Painting, "Kirby Mill."

### *Kingston Art School.*

Specimens of Examination Papers in Grades A. & B.
Perspective.
Architectural Drawing.
Mechanical Drawing.
Original Designs for Industrial uses.
Designs for Oil Cloth in Competition for a Silver Medal, presented by the Ontario Manufacturers' Association.
Shading from the "Flat."
Anatomical Figures.
Outline from the "Round."
Shading from the "Round."
Shading—Still Life.
Flower Drawing.
Water Colors.
Oil Paintings.

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## PART IV.

## INSTITUTIONS FOR THE EDUCATION OF THE BLIND AND DEAF AND DUMB.

### *Ontario Institution for the Education of the Blind, Brantford.*

*Historical and Statistical.*

Chart explaining the History and Statistics of the Institute.
Form of Application.
By-Laws.
Rules and Regulations.
Where it is, What it is, and What it does.
Annual Reports, 1882-3-4-5.

*Photographs.*

View of Buildings.
View of Buildings and grounds.
A Piano Lesson.
A Tuning Lesson.
A Knitting Class.
A Sewing Class.
Willow Work Shops.

*Appliances for Teaching.*

Reading and Writing.
Point Print Slate.
Embossed Book in Line Type.
Embossed Book in Point.
Embossed Book in Point Print.
Grooved Writing Cards.

*Physiology and Natural History.*

- Cast of Human Leg.
- Stuffed Pouched Gopher.
- Stuffed Ground Hog.
- Stuffed Prairie Hen.
- Stuffed Grakle.
- Stuffed Black Bass.

*Willow Work Models.*

- Chair, Basket, etc.

*Pupils' Work.*

- Reading and Writing.
- Embossed Book transcribed in Point Print.
- Specimens of Writing with Grooved Cards.
- Willow Work.
- Crochet Work.
- Bead Work.
- Machine and Hand Sewing.
- Machine Knitted Goods.
- Hand Knitting.

### *Ontario Institution for the Education of the Deaf and Dumb, Belleville.*

Statistical Chart.

*Photographs.*

- Deaf and Dumb Institute.
- Deaf and Dumb Institute, with Pupils.
- Boys Learning Shoemaking.
- Football Club.
- Pantomime Club.
- Pantomime Club
- Superintendent and Officers.
- Superintendent's Residence.

*Text-Books.*

- Readers.
- Arithmetic.
- History.
- Geography.
- Natural Philosophy.
- Religious Instruction.

*Pupils' Work.*

- Crayon Drawings.

## PART V.

## COLLEGES OF AGRICULTURE AND VETERINARY SCIENCE.

### *Ontario Agricultural College and Experimental Farm, Guelph, Ontario.*

*Geology.*

Specimens illustrating the Geology of the Province of Ontario, used for teaching purposes.

- Laurentian Series.
- Huronian Series.
- Cambrian Series.
- Silurian Series.
- Devonian Series.
- Pleistocene.

Rocks which chiefly compose the Earth's Crust.
Minerals which constitute the majority of Rocks.
Animals which have influenced the Formation of Soil.

*Mineralogical Collection.*

- Specimens used for purposes of reference in the Museum.
- Native Elements.
- Sulphides and Arsenides.
- Chlorides and Fluorides.
- Silicates.
- Phosphates, Nitrates, Borates, and Tungstates.
- Sulphates.
- Carbonates.
- Hydro-Carbons.

### *Botany.*

Specimens illustrating Systematic and Economic Botany, used for teaching purposes.

### *Zoology.*

Model of a Horse, showing internal structure.
Model of a Cow, showing internal structure.
Head of Devon Steer, fed at the farm, aged four years, weighed 1,960 lbs.
Head of Prince Albert Windsor Boar, purchased from Her Majesty the Queen, 1876, aged four years, weighed 410 lbs.
Collection of Insects injurious to Vegetation—1 to 11, Apple; 12 and 13, Pear; 14 to 17, Plum; 18 to 22, Cherry; 23 and 24, Cabbage; 25, Tomatoes; 20 to 32, Grape; 33, Currant; 34, Pea; 35, Potatoes.
Collection of Coleoptera.
" Hymenoptera.
" Lepidoptera.

### *Agricultural Seeds in Bottles.*

Barley.
Wheat.
Rye.
Oats.
Beans.
Peas.
Timothy Seed.
Clover Seed.
Millet.
Carrot Seed.

Chart showing history and progress of the Institution.
" plan of experimental field plots.
" plan of Farm.
" plan of Arboretum Planting, etc.
" Food in Cattle life, ten years at the farm.
" Milk per season, an estimate, 12 cows.
" Chemical analysis of Milk, 11 cows.
" Cream per cent., 11 cows.
" Butter Globules, result of 21 Microscopic observations at farm, 12 cows.
" Butter per 100 lbs., Milk and Cream, 11 cows.
" Cheese per 100 lbs., Milk and Cream, 11 cows.
" Farmers' Institutes held throughout the Province.
Photograph of Building.
Reports, etc.
Ontario Agricultural Commission, 1881, four vols.
Dairymen's Association.—Reports, etc.
Reports of the Fruit Growers' Association, and Entomological Society of Ontario, 1882.
Annual Reports of the Entomological Society, 1879-84.

## *Ontario Veterinary College, Toronto, Ontario.*

Principal, A. Smith, V.S.

(In connection with the Agricultural and Art Association.)

### *Photographs.*

View of College.
Dissecting Rooms.
Operating Room.
Operating Room with Students.
Portraits of 90 Senior Students, 1884-5.
Portraits of Senior Students and Professors, 1886.

## PART VI.

## SCIENTIFIC SOCIETIES, COMMERCIAL COLLEGES, Etc.

*School of Practical Science, Toronto.* Established 1877.

Photograph of Building.
Specimens of Drawing from the Department of Engineering.

### 1st Year.

Descriptive Geometry.
Orthographic Projection.
Surveys.
Graphics.
Machine Drawing.
Construction Copies.

### 2nd Year.

Descriptive Geometry.
Copies.
Practice Sheets.

### 3rd Year.

Descriptive Geometry.
Orthographic Projection.
Perspective Projection.
Stone Cutting.
Surveys.
Constructive Design.
Copies.

*Institute Canadien Français, de la cité d'Ottawa.*

Crayon Drawings.
Indian Ink and Pencil.
Mechanical Drawing.
Architectural and Masonry.
Linear Drawing.
Perspective.
Map Drawing.
Fancy Lettering.
Penmanship.

*Meteorological Observatory, Toronto.*—Photograph of Buildings.

*Brockville Business College, Brockville,* W. C. Austin, Principal.

Theory and Actual Business Department.
Test Books.
Students' Work.
Samples of the Money and Merchandise used by Students in the Actual Business Department of the College.

*Canada Business College, Hamilton,* R. E. Gallagher, Principal.

Business Penmanship.
Off-hand Flourishing.

*Northern Business College, Owen Sound, Ontario,* C. A. Fleming, Principal.

Specimens—Ornamental Penmanship.
Pen and Ink Sketch, showing how to obtain Practical Education.

## PART VII.

## UNIVERSITIES, COLLEGES, SCHOOLS OF MEDICINE, ETC.

*Albert University, Belleville.*—Photograph of Buildings.

*Victoria University, Cobourg.*—Photograph of Buildings.

Kosmos (V. P. Journal), published by the Science Association of the College.
Acta Victoriana, a Monthly Journal published by the Literary and Jackson Societies.

*Toronto University, Toronto.*—Photograph of Buildings.

*University Trinity College, Toronto.*—Photograph of Buildings.

*Upper Canada College, Toronto.*—Pupils' work. Photograph of Buildings.

*Trinity College, Port Hope.*—Photograph of Buildings.

*Wycliffe College, Toronto.*—View of Buildings.

*Knox Presbyterian College, Toronto.*—Photograph of Buildings.

*Demill Ladies' College, Oshawa.*—Painting of Buildings.

*Alma Ladies' College, St. Thomas.*

Pupils' Work.
Freehand from Flat Copy.
Linear Perspcctive.
Geometry.
Shading from Antique.
Outline from the Round.

*Ontario Ladies' College, Whitby.*

Photograph of Building.
Pupils' Work.
Freehand Drawing.
Original Designs.
Shading from the Flat.
Water Colors.

*Brantford Ladies' College, Brantford.*

Photograph of Building.
Pupils' Work, Oil Paintings.

*Hamilton Ladies' College, Hamilton.*

Photograph of Building.
Pupils' Work.
Oil Paintings.

*Woodstock Ladies' College, Woodstock.*

Art Department.
Pupils' Work.
Oil Paintings.
Water Colors.
Plain Crayons.
Pastel Crayons.

*Loretto Abbey, Toronto.*

Photograph of Building.
Pupils' Work.
Oil Paintings.
Oil on Velvet.
Water Colors.
Crayon Drawing.
Embroidery.
Wax Work.

*Loretto Convent, Hamilton.*

Pupils' Work.
Oil Painting on China.
Water Colors.
Modelling in Clay.
Satin Stitch and Applique Work.
Honiton Lace.

*Hellmuth Ladies' College, London.*—Photograph of Buildings.

*Sacred Heart Academy, London.*—Lithograph of Buildings.

*Loretto Convent, Niagara Falls.*—Photograph of Buildings.

*St. Joseph's Convent, Toronto.*—Photograph of Buildings.

*Convent of Notre Dame, Peterborough.*—Photograph of Buildings.

### SCHOOLS OF MEDICINE, ETC.

*Toronto School of Medicine, Toronto.*—Photograph of Buildings. Chart of Statistics.
*Royal College of Physicians and Surgeons, Kingston.*—Photograph of Building.
*Ontario Pharmaceutical College, Toronto.*—Photograph of Building.

### OTHER INSTITUTIONS.

*Osgoode Hall, Toronto.*—Photographs of Buildings and Library.
*De La Salle Institute, Toronto.*—Photograph of Building.

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In addition to the catalogue a large edition of a pamphlet relating to the Educational system of the Province of Ontario, showing its progress, was distributed at the Exhibition. It contained brief descriptive sketches of the working of the Educational Institutions in Ontario as follows:—

## I.—ELEMENTARY SCHOOLS.

1. Kindergartens. 2. Public Schools, including Roman Catholic Separate Schools; with information on the Municipal system as applied to Schools; Public School Trustees and their duties; Public School Inspectors and their duties; County Boards of Examiners and their duties; the Central Committee and its functions; Teachers' Examinations; Certificates to Teachers; Religious Instruction in the Schools, etc.

## II.—THE TRAINING OF TEACHERS.

1. County Model Schools, with course of study, etc. 2. Provincial, Normal and Model Schools, their object, course of instruction, etc. 3. Training Institutes, course of study, etc. 4. County Teachers' Institutes, formation and object. 5. Teachers' Reading Course, with list of books recommended, etc. 6. Ontario Teachers' Association.

## III.—CLASSICAL SCHOOLS.

1. County High Schools, qualifications of masters, course of study, etc. 2. Collegiate Institutes, how formed. 3. Upper Canada College, Endowment, course of instruction, etc.

## IV.—THE UNIVERSITIES.

1. University College, course of instruction, examination, etc. 2. The University of Toronto, its functions, etc.

## V.—TECHNICAL SCHOOLS.

1. School of Practical Science, course of study, etc. 2. Ontario School of Art, course of instruction, etc. 3. Ontario Agricultural College and Experimental Farm, its object, department of instruction, etc.

## VI.—SCHOOLS FOR SPECIAL CLASSES.

1. Ontario Institution for the Deaf and Dumb, its history and objects, course of instruction, etc. 2. Ontario Institution for the Education of the Blind, its history, etc.

## VII.—INSTITUTIONS PARTLY AIDED BY GOVERNMENT.

1. The Canadian Institute, Toronto. 2. Institut Canadien, Ottawa. 3. Mechanics' Institutes, throughout the Province. 4. Ontario Society of Artists, Toronto. 5. Local

Art Schools, Toronto, Ottawa, Hamilton, Kingston and London. 6. Literary and Scientific Society, Ottawa. 7. Hamilton Association. 8. The Entomological Society of Ontario.

## VIII.—UNIVERSITIES, COLLEGES, AND SCHOOLS NOT UNDER PROVINCIAL CONTROL.

1. UNIVERSITIES:—Victoria, at Cobourg; Queen's, at Kingston; Trinity College, at Toronto; Ottawa College; Western, at London. 2. THEOLOGICAL COLLEGES:—Knox, at Toronto (Presbyterian); Huron, at London (Church of England); Wycliffe, at Toronto (Church of England); McMaster Hall, at Toronto (Baptist); St. Michael's, at Toronto (Roman Catholic); Assumption, at Sandwich (Roman Catholic). 3. CLASSICAL AND LITERARY COLLEGES, ETC.:—Albert College, at Belleville; Woodstock College; Trinity College School, at Port Hope; St. Michael's (in part), Toronto. 4. LADIES' COLLEGES:—Alexandra (department), at Belleville; Alma, at St. Thomas; Bishop Strachan School, at Toronto; Ladies' College, at Brantford; Hellmuth College, at London; Wesleyan Ladies' College, at Hamilton; Ontario Ladies' College, at Whitby; The Ladies' College, at Ottawa; Demill Ladies' College, at Oshawa; Ladies' College, Woodstock (department); Loretto Abbey, Toronto; Loretto Convents, at Hamilton, Lindsay and Niagara Falls; St. Joseph's Academy, Toronto. 5.—MEDICAL SCHOOLS, ETC.:—The College of Physicians and Surgeons of Ontario; Toronto School of Medicine; Trinity Medical School, Toronto; Royal College of Physicians and Surgeons, Toronto; College of Pharmacy, Toronto; School of Dentistry of the Royal College of Dental Surgeons, Toronto; Women's Medical Colleges, Kingston and Toronto; Ontario Veterinary College, Toronto. 6. BUSINESS COLLEGES:—At Belleville, 1; Brockville, 1; Chatham, 1; Guelph, 1; Hamilton, 2; Kingston, 1; London, 1; Peterboro', 1; Toronto, 2; Owen Sound, 1.

## IX.—MISCELLANEOUS INSTITUTIONS.

1. The Magnetic and Meteorological Observatory, Toronto. 2. Royal Military College, Kingston. 3. The Law Society of Upper Canada. 4. Public Libraries in Ontario.

## X.—BENEVOLENT EDUCATIONAL INSTITUTIONS.

1. Shingwauk Home for Indian Boys.
2. Wawanosh Home for Indian Girls, Sault Ste. Marie.

## XI.—BENEVOLENT EDUCATIONAL HOMES AND REFORMATORIES.

1. The Boys' Home, Toronto. 2. The Girls' Home, Toronto. 3. The Orphans' Home, Toronto. 4. Industrial School, Toronto. 5. Industrial Refuge for Girls, Toronto. 6. Ontario Reformatory for Boys.

In accordance with your instructions I got 500 copies each of the pamphlet and catalogue bound together in cloth for distribution to H. M. School Inspectors, Clerks of School Boards, etc., throughout the United Kingdom. A copy of the following circular was sent with each book:—

COLONIAL AND INDIAN EXHIBITION, 10th July, 1886.

DEAR SIR,—I am directed by the Honorable the Minister of Education to send herewith a pamphlet respecting the educational system of the Province of Ontario, Canada, and a catalogue of Exhibits of School Material, Pupils' Work, etc., at the Colonial and Indian Exhibition.

I shall be pleased to meet any of H. M. Inspectors of Schools, Teachers, and Educationists, by appointment; or give any information respecting our Exhibit, or School System, by correspondence.

Yours truly,

S. P. MAY.

Nearly every person to whom the circular was sent acknowledged its receipt, and many of them made appointments to visit the Exhibition during the holidays; amongst others, letters were received from the Education Department, Whitehall; H. M. School Inspectors, London, and School Boards in Acton, Ashford, Ariedale, Birmingham, Cambridge, Chelsea, Exeter, Edinburgh, Friston, Guildford, Harrow, Hull, Ipswich, Kent, Liverpool, Manchester, Nottingham, Newcastle, Norwich, Oxford, Richmond, Rochdale, Salford, Wokingham, etc.

The following extracts show that the press took an interest in this scheme. The *Globe* says:—

"The remarkable educational exhibit, which has been sent to South Kensington under the auspices of the Ontario Government, continues to attract the attention it merits from all classes of visitors. Already it has been examined in detail by many educationists, a large number of whom will, however, be freer to spend time in the Court when the summer vacation begins. To bring the exhibit before the notice of these gentlemen, Dr. May has taken a wise step. To official school inspectors, to the principals of the leading schools and colleges, and to clerks of school boards and other similar authorities—numbering in all several hundreds—he has sent a neatly bound volume containing a description of Ontario's Educational System, and a Catalogue of the Exhibits. With this volume, which is 'presented on behalf of the Education Department of Ontario, by the Hon. G. W. Ross and Dr. S. Passmore May,' a special invitation to visit the Court is also forwarded, and an intimation is given that Dr. May will be most happy to furnish personally to such visitors all the information in his power. The invitation will, doubtlessly, be gladly accepted by many of the best-known members of the scholastic profession, and by this means much useful information will be disseminated respecting Ontario's enterprise in a matter which is so closely related to the real welfare of the province."

The *Schoolmaster* remarks:—

"Dr. May will be happy to give every explanation which may be desired for educationists who are anxious to make a personal study of the results as they are displayed in South Kensington; and, if parties of visitors will communicate with him personally, he will be happy to arrange for a collective guidance and descriptive sketch."

As many of the inspectors and representatives of school boards notified the teachers in their respective districts, that the educational point would be of interest to them during the holidays, a large number of teachers and others concerned in education, accepted my invitation, and I am proud to say that many of them acknowledged the superiority of our educational system, and all of them seemed surprised at the extent and excellence of our exhibit.

Extract from *Press*:—

"The vacation, which is now drawing to a close, has enabled a large number of leading educationists to pay a visit to the Ontario Educational Court. In response to the circular issued by Dr. May, numerous replies have been received from all parts of the United Kingdom, and appointments been made with many leading members of the profession, for a careful examination of Ontario's exhibit. Without an exception, these experts have all pronounced themselves as much pleased and surprised at the evidence afforded of Ontario's educational progress, and especially with the excellent display of appliances for teaching, and the character of the specimens of work done by the pupils."

## OPINIONS OF THE BRITISH PRESS ON THE EDUCATIONAL EXHIBITS OF ONTARIO.

As it would occupy too much space to insert all the lengthy articles referring to our exhibits by the press, I shall confine myself to extracts from them, giving first a few of the notices relating to the general, and afterwards those which refer to special exhibits, in the order of classification in the catalogue.

In a series of articles on the Canadian section of the Exhibition, the *Times* notices the educational exhibit of the Dominion. The writer remarks:—

"Canada has already produced a very creditable national literature, notably in History and Science. As the section devoted to education and instruction shows, Canada has an excellent system of national education. The Ontario Section has been admirably arranged by Dr. Passmore May, the Commissioner in charge of the education exhibits of that province, and would require an article to itself to do it justice. There is much historical and statistical material showing the progress and present condition of education; exhibits illustrative of school methods and organization; a fair show of photographs of schools, colleges, etc.; school furniture and fittings, some of them highly ingenious; text books of all kinds; apparatus used in teaching anatomy and physiology, physics, chemistry, and other subjects; with abundant specimens of pupils' work in all departments. Then we have exhibits from mechanics' institutes, art schools, institutes for deaf, dumb, and blind, agricultural and other special colleges, universities and the higher institutions. All these are shown and exhibited by the Ontario Government."

In a subsequent article the writer observes:—

"The educational exhibits of Canada deserve more detailed notice than we were able to accord them in our previous articles. In none of the courts is this department of colonial activity so fully represented. As we have already said, the Educational Department of Ontario, under the care of Dr. May, is more fully represented than is the case with any of the other provincial governments. The Ontario educational system has been in working order for many years, and is very completely organized, from the Kindergarten and public elementary schools up through the various training schools for teachers, classical schools, universities, technical schools, special schools, medical and other independent schools, and scientific and literary institutions. All these classes of institutions are well represented in the Ontario Court. In the gallery there are abundant exhibits, showing the working and results of the Kindergarten and elementary schools. In the former the training seems well adapted to educate the eye and the fingers of the little ones, as well as to draw out their budding minds. The specimens of art work, of maps, and exercises of various kinds from the elementary schools would come out well if placed alongside any similar specimens from the schools of this country. The art schools, especially, appear to be doing excellent work, as anyone may see for himself by inspecting the many sketches and models which are exhibited in the Court. The systems in vogue in the institutions for the deaf and dumb, and for the blind, seem particularly well adapted to their purpose; and the statistics of these institutions on the central screens, as well as the specimens of work and illustrations of method and apparatus in the gallery, are well worth inspecting by those interested in this special department of education. Evidently very great care is bestowed on the training of teachers for the various classes of schools in Ontario. The examinations which they have to undergo are formidable and comprehensive, and for the higher grades quite as formidable as that of the London B. A., and far more varied. Science holds a prominent place in the educational system of Ontario, and the specimens of apparatus in all departments—physics, chemistry, biology—for teaching it are among the prominent exhibits of the Court. The Ontario Agricultural College, established in 1874, is largely represented among the exhibits; and from them, as well as from the published reports and results, it is evident that the institution affords an admirable training, which must have a highly beneficial influence on the agricultural development of the Dominion. These are only a few of the more evident features of this interesting Court. We must refer those desiring further details to the volume on the 'Educational System of the Province of Ontario," published in connection with the Exhibition.

"Altogether, education in Canada is in a healthy and hopeful condition. There are probably too many degree-granting bodies; degrees would be much more valuable if they were granted solely by one central university for each province."

The *Schoolmaster*, in a series of articles on the Schools of Greater Britain, describes at length the educational system of Ontario. The following extract is from one of its first s:—

"In dealing with the educational details of the Dominion, we turn to Ontario, as a matter of course, in the first place. It is in every way the most important section, and on the present occasion is represented with a completeness which befits the occasion. Its Education Department, under the direction of the Hon. Geo. W. Ross, LL.B., M.P.P., Minister of Education, controls the Provincial Normal and Model Schools; County Model Schools; Public, Separate and High Schools, and Collegiate Institutes; also, Upper Canada College, School of Practical Science, University College, Toronto University, Educational Museum, and Art Schools, Mechanics' Institutes, and other institutions receiving Government aid for educational purposes in the Province of Ontario. The fruits of these educational institutions are summarized and illustrated in an excellent display, which has been prepared under the supervision of Dr. S. Passmore May, the Superintendent of Mechanics Institutes and Art Schools.

To the Hon. Mr. Ross and to Dr. May alike, we have to return our sincere thanks for the voluminous information which has been placed at our disposal, and for the personal courtesy which has been displayed at our interviews in the educational section."

The *Morning Post*, in an interesting article on Canada, says:—

"A very remarkable and deeply interesting exhibit is made by the Education Department of the Province of Ontario, Canada, which is arranged in the space between the Canadian Exhibits and the section devoted to New Zealand. Since 1807, when the first legislative enactment was passed, establishing a classical and mathematical school in each of the eight districts in which Upper Canada was then divided, great progress has been made. Year by year the work of educational advancement has been steadily going on, the greatest forward stride being in 1844, when the appointment of the Rev. E. Ryerson, D.D., to the office of Chief Superintendent of Education, gave a great impetus to public education. This gentleman set to work to reconstruct, upon a broader and more comprehensive basis, the system of elementary schools. That now in use may be said to be a combination of the best elements of the systems of several countries—notably, the United States and Germany. All are, however, so blended together and modified that they are no longer foreign, but incorporated as part and parcel of the system of public instruction in Ontario. Dr. Samuel Passmore May, Superintendent of the Mechanics' Institutes and Art Schools, has arranged the display in a manner which reflects greatly upon his judgment and organizing power. The Court is decorated in an artistic manner, and embellished with busts of leading citizens who have devoted themselves in an especial manner to the advancement of education. The Kindergarten system has evidently taken deep root in Canada, and the exhibits are worthy of the attention of those who are interested in this admirable method of facilitating study for children in this country. The fine arts have not been neglected, and there are models, paintings, drawings from the life, casts in bronze, wood carvings, paintings on porcelain, and a variety of other interesting proofs of the zeal which is exercised in Toronto, as elsewhere in Canada, in all that concerns artistic training. Some of the paintings show considerable talent, but the wood-carvings and bronze work are exceptionally excellent. One cannot help thinking when examining the work here displayed, that the importation of a few well-trained Italian teachers of drawing, past masters in the art, such as are to be found in Rome or Florence, and who would willingly emigrate, would prove of inestimable advantage to the young Canadians, who have evidently talent, but which has not always been well developed, possibly from a lack of proper direction. But in all that concerns science and agriculture, no fault can be found. The collection of geological specimens used for teaching purposes are capital, and the photographs for instruction in anatomy are remarkably ingenious, notably so, those which have the veterinary science for their object. The Albert University, Belleville, sends some capital photographs, and the Victoria University several publications of a literary character, which prove that the pupils take interest in all that is of importance in ancient and modern art and history. The Roman Catholic ladies' colleges, which are numerous throughout Canada, excel in the beauty of their laces and embroideries, and evidently devote much attention to the arts of painting on silk and the reproduction of every kind of lace. A good hour could well be passed in this section by all who take interest in educational matters, and those who do so should not fail to pay a visit to Dr. May, and obtain direct from him information, which he is always glad to impart as well as to receive, it being his great object, whilst in England, to obtain from all sources ideas and views calculated to practically improve the educational system of his adopted country."

The following extracts are from the *Canadian Gazette*:—

### "THE ONTARIO EDUCATIONAL COURT.

'Education is the glory of Canada.' This is the motto placed above the entry to the Canadian educational exhibits, and no visitor can inspect these exhibits without feeling that the motto is far from a mere idle boast. Everyone knows how important a part education plays in the public life of the Dominion, and in no Province is this more the case than in Ontario.

Ontario's system of public instruction is indeed remarkable, as a combination of the best elements of the systems of several countries. From New York some leading ideas as to the machinery of the schools have been obtained; from Germany tho system of Normal School training; from Ireland originally came the principle upon which the series of text-books is based; and from Massachusetts the system of local taxation upon which the schools are supported. Thus, gathering here a little and there a little, Ontario has succeeded in building up a system which, combining what is best in the leading methods of the old and new worlds, is admirably suited to the exact needs of the country. What those needs are it is hardly necessary to enquire on the face of the industrial development shown in almost every part of the Canadian Section at South Kensington."

"The Ontario Educational Court is itself excellently representative of the advanced position assumed by education in the Province, and its inspection cannot be better undertaken than in company with the excellent descriptive catalogue to the exhibits which Dr. May has been at no little trouble to prepare."

"The whole exhibit is one of the greatest interest, and, let it be added, of the greatest educational value in Great Britain, where many important lessons may be learnt from the excellent system which Ontario has taken such pains to perfect. Ontario, too, may find food for satisfaction; for if, as Jules Simon somewhere tells us, the people that maintains the best organized schools is the greatest people of the world—if not to-day, at least to-morrow—the Province has every reason to regard its future with great hope. It should be added, that under Dr. S. P. May, as Commissioner of Education at the Exhibition, and Superintendent of the Art Schools and Mechanics' Institutes of Ontario, the various exhibits have been arranged with every regard to their relative importance and the frequent necessity for speedy reference. It may also be mentioned that the Hon. George W. Ross, Minister of Education for Ontario, personally interested himself in the display here and in Canada, and while in England was made an Honorary Commissioner of the Canadian Section."

The *Christian World* says:—

"The Province of Ontario has taken advantage of the Colonial and Indian Exhibition to call attention to its educational system, of which it is justly proud. A complete collection of school appliances, pupils' work, etc., prepared under the direction of the Minister of Education, is exhibited. A catalogue of this collection, prefaced by an exhaustive descriptive and statistical account of the past progress and present position of education in the province, may be obtained by anyone interested in the work from Dr. Passmore May, the Commissioner in charge. The population of Ontario is now a little short of two millions, and in forty years the children of school age have increased from 183,539 to 471,287. The number of schools has increased from 2,610 to 5,316, with a present annual expenditure of between three and four million dollars. There are five universities or colleges not under provincial control; nineteen classical and literary colleges; eight medical colleges, including two for women; and six theological colleges, belonging to the Churches of England and Scotland, the Roman Catholics, and the Baptists. There are various other miscellaneous professional institutions. The Sunday-schools are 3,600 in number, with 200,000 scholars, taught by 23,000 teachers. The Province has incorporated what seemed to it the best features in the educational systems of the States, Germany, and our own country. It evidently holds firm to the belief that knowledge is power. The progress made is marvellous considering the difficulties that have had to be encountered and overcome."

The *South London Press* in an article on Education at the Exhibition says:—

"A brief study of the great Intercolonial Show at South Kensington will convince the inquirer of the progress education is making in our Colonies. In each of the courts there are photographs of school houses, colleges, and universities, as well as statistics of the number of children under instruction, the amount of money annually spent on schools, and other such information. Canada has, however, the best educational display in the Exhibition, and judging by its size and completeness, the great Transatlantic British dependency is intellectually more than keeping pace with the times. This is the most enlightened age of the world's history, and all civilized countries are now competing in the efficiency of their systems of education, genera and technical, as it is well uderstood by their statesmen and political economists that education is the most powerful lever for the social elevation of the masses, and the surest foundation for the stability of the State. This fact would seem to be fully recognized by the Government and people of Ontario, or, as it was formerly called, Upper Canada—the wealthiest, and most influential province in the Confederation. Her educational display at South Kensington is very fine, and while that of the Dominion is the largest in the Exhibition, that of Ontario is the best and most important of all the Canadian provinces. On the walls there are numerous photographs of the educational establishments, many of which would seem to be buildings of considerable architectural merit, such as the University of Toronto, St. Michael's College, Toronto, Trinity College, Toronto, the Catholic Convent at Niagara Falls, and many other institutions for the instruction of youth. There are also some excellent drawings by pupils of the Art Classes connected with the Mechanics' Institutes, all of which receive a grant in aid from the provincial Government, of which education is a department, under a responsible Minister, who has recently made a tour in Europe to see what improvement he could effect in the Ontario school system. The display, which was in charge of Dr. May, who is an experienced educationist, does the Province honour, and is a strong evidence of her intellectual energy, as well as of cohesion and unity of action among her people."

A special report for the *Colonial Exhibition Supplement* on the Ontario Educational Exhibit was prepared by Mr. H. Courthorpe Bowen, M.A., Principal of the Finsbury Training College for middle and higher schools, from which I here give extracts, and shall give others under the different classes as extracts from Mr. Bowen's report. In his introductory remarks, Mr. Bowen says :—

"Through the kindness of Dr. May I have been able to make a tolerably minute examination of the educational work arranged by him, and now to be seen in the Ontario division of the Canadian Court of the Colonial and Indian Exhibition. I propose to state as concisely as possible, the general impressions which that examination has left upon my mind. Let me say at once that I have been much struck by the completeness and comprehensiveness of the exhibit as a whole, and by the generally satisfactory character of the work shown—work which is the result of an educational system of which Ontario is very justly proud. As far as completeness and soundness of organization are concerned, we have nothing in the old country to be compared with the system of Ontario. In England organization ceases with the elementary—or as a Canadian would call them, the 'public'—schools. Above this, the lowest grade, English education is entirely unorganized. This state of things, no doubt, has its advantages ; but it has one very great disadvantage, against which Ontario has most wisely protected itself. In English schools, above the lowest grade, anyone can assume the office of teacher without having satisfied any tests that he or she is fitted to teach or to manage school-classes ; while, strange to say, our inspectors of schools, with only a few though very striking exceptions, are the most amateur of all, and have not, as a rule, ever been schoolmasters. Even amongst our elementary teachers' training, properly so-called, is by no means universal, and what there is of it is in many respects decidedly unsatisfactory. In Ontario, however, as far as I can judge from the printed regulations, both the system of training adopted and the course of study prescribed, seem to me very distinctly good ; though I think that more importance should be attached to the regular study of Pscyhology, and that every teacher should be required, even for the third-class certificate, to master as much of the subject as is contained in such a book as Mr. Sully's smaller one * 'The Teacher's Handbook of Psychology,' while as to the results of the system, as shown in the work of the pupils of the Public and High Schools of Ontario, I can honestly say that, taken as a whole, it is already, in my opinion, quite equal, and in some respects superior, to the average work of our Elementary, Middle, and Grammar Schools in England. And, moreover, the work of the Collegiate Institutes, except perhaps in the department of classics, would not suffer much by being compared with that of our great public schools.

For details of Mr. Bowen's report see notice of the different classes of exhibits.

Extract from a lengthy article in the *Clerkenwell Chronicle* :—

"The Ontario Court is situated at the end of the Machinery in Motion Section, and between it and the New Zealand Court, and occupying about 3,000 feet of space, the exhibits being in charge of Dr. May, an experienced educationist. At South Kensington this gentleman never loses an opportunity of directing public attention to his exhibits, and to that end has published an exceedingly interesting handbook, which he judiciously distributes to those interested in school matters. In the centre of the court are charts which show at a glance the educational work of the last few years and the basis upon which the system is established, In elegant glass cases are numerous models for the use of pupils, more especially those of the Normal Schools and Art Classes, many of them being connected with the Mechanics' Institutes, of which there are in Ontario a great number scattered up and down the country, the pupils of those classes being eligible for certificates of competency from the Education Department of the Provincial Government. Toronto, the capital of Ontario, is an archiepiscopal see of the Roman Catholic Church, and the people of that communion have separate schools, or, as they are called in this country, denominational schools, and judging of them from the display at the Collinderies, many of them are large and handsome buildings, to which in the arrangement in his collection of photographs Dr. May has given advantageous positions, a rather pleasant feature, inasmuch as it shows a spirit of impartiality to Catholics and Protestants alike Without going into the minute details of this excellent exhibit of the educational progress made during the last few years in the large and flourishing Province of Ontario, we may, however, generalize by saying that it is a striking evidence of the push and energy of her people and Government. The fine collection of photographs, models, drawings, scientific instruments school furniture, maps, globes, needlework, carving in wood, metallurgical designs, and class-books, are powerful witnesses of her rapid strides towards that higher civilization always brought into existence by refinement and education."

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* I subsequently directed Mr. Bowen's attention to the fact that Sully's Psychology and Jardine's Psychology of Cognition are on the list of books recommended for teachers.

I shall now refer to the different classes of exhibits as classified in the catalogue:—

## PART I.

## NORMAL AND MODEL SCHOOLS, PUBLIC AND HIGH SCHOOLS AND COLLEGIATE INSTITUTES.

### Class 1.—Historical and Statistical.

This Class consisted of Educational Reports, Statistics, etc. The principal feature was an educational trophy, which was placed in the centre of the Court. It consisted of twelve large charts, showing the progress and statistics of Educational Institutions under control of the Education Department, and Educational Institutions assisted by the Government of this Province These were mounted on a dodecahedron or twelve-faced prism, with mirrors between the frames. On the top of each frame was a large photograph of the institution referred to in each chart. In the centre of the charts, and surmounting the prism, was a semi-circular support for a 36-inch globe, so colored and placed in position as to show the immense extent of territory in the Dominion of Canada.

This trophy was a great attraction, the excellent photographs of some of our principal educational buildings were much admired, and the statistics on the charts were so clearly indicated that persons could see at a glance the immense educational progress we have made in this Province during the past forty years.

In addition to the trophy, we had a large map of Ontario, specially prepared to show the number of public schools, high schools, colleges, ladies' colleges, universities, etc., in each county.

### Class 2.—School Methods and Organization.

In this Class were books on school methods, education, hygiene, etc. The following notices refer to some of the books :

The *Schoolmaster* has the following review of the Manual of Hygiene for Schools and Colleges (Toronto, W. Briggs) :—

> " Prepared by the Provincial Board of Health, and authorized by the Minister of Education, for use in all schools under the control of the Education Department of Ontario, this work, while presenting nothing of originality in conception or treatment, appears to be a very fair compilation from acknowledged text-books and authorities on both sides of the Atlantic. A good table of contents precedes, and an index follows the text ; while speedy reference is much facilitated by printing the first words of each paragraph, which are so contrived as to give a clue to what follows, in condensed type. The references in the index, too, are to paragraphs, not pages. There is the usual amount of elementary physiology ; which, however, we would rather were omitted, and taught, as our syllabus requires, previously from special text-books. Among the statistics adduced in proof of the influence of sanitary improvements on the health of towns, the most remarkable are those showing the reduction of the mortality from typhoid in Munich, from 242 to 17 per 100,000, step by step with the introduction of better methods of sewerage. We should, however, have liked to see more attention called to the fallacies incident to the inconsiderate use of statistics. There are some interesting remarks on the feasibility of sewage irrigation, even when the ground is frozen hard and covered with snow. Mr. W. Briggs' (not the publisher's) experiments with smoke in demonstrating the movements of the air in rooms, with the inlets and outlets in different positions, are most interesting, and, should they be verified, cannot fail to be of the utmost practical importance. He found a complete change of the air in every part of the room only when the outlet was at the level of the floor and the inlet high on the same side. The chapters on school hygiene are especially good, and the work, as a whole—covering a somewhat wider field than our elementary and advanced, but a narrower than our honors syllabus—is one which we can heartily recommend. We cannot but think, however, that the introduction of a few mathematical formulæ in the chapters on ventilation and sewerage would be an improvement.

Public School History of England and Canada. By G. M. Adam and W. J. Roberts, Toronto : The Copp Clark Company.

"We felt, after reading the preface of this book, that we should find a short history, but very well compiled and written, and we were not disappointed. The hints to teachers, though somewhat out of place, are excellent in their way, and there is a careful list of authors recommended. We are surprised, however, that this list omits Mrs. Rawson Gardener's name."

The Rev. C. H. Spurgeon, in the *Sword and Trowel*, refers to the "Scripture Readings for High and Public Schools" as follows :—

"Our Ontario friends have selected these readings from Scripture, for use in the schools of the Province, and the selection has been judiciously made. Without violation of religious liberty, the Bible is thus read in the public schools ; and why not ? What is education without religion and morality ? Where can these be so well learned as from the sacred Word ?"

The *Christian World*, in a special notice, says :—

"We have received a copy of 'Scripture Readings for High and Public Schools,' published by the Education Department, Ontario. The readings have been carefully selected and arranged by the representatives of all denominations. The volume appears very suitable for the purpose in view. The readings are classified as historical, devotional, didactic, prophetic, and moral ; the Gospels ; the Acts of the Apostles ; and Selections from the Epistles. The whole of the Bible is thus laid under contribution, and the young folk, for whose benefit the book is designed, should obtain from it an intelligible idea of the main facts of sacred history and teaching, without the glosses put upon it by sectarian explanations. In the preface, teachers are exhorted to due reverence, decorum, and earnestness, whilé the Scripture exercises are in progress, and are enjoined to lose no opportunity of inculcating the principles of truth and honesty, and obedience to those to whom it is due."

The *Christian Herald and Signs of the Times* also remarks :—

"A volume of 'Scripture Readings for High and Public Schools' has been prepared under the direction of the Education Department of Canada, which contains a course of lessons so arranged as to include the most instructive portion of both the Old and New Testaments. Dr. May, of the Canadian Education Department, Colonial and Indian Exhibition, South Kensington, London, will answer any inquiries which may be addressed to him upon the subject."

## CLASS 3.—SCHOOL ARCHITECTURE AND PHOTOGRAPHS OF SCHOOL BUILDINGS.

These large photographs were mounted in handsome black walnut frames, and displayed in front of the galleries.

The following extract is from the *Clerkenwell Chronicle* :—

"There are in the Exhibition numerous examples of the educational development of the colonies, but the largest and most important is that of Ontario, or, as it was formerly called, Upper Canada. This fine display of School appliances and pupils' work marks the extraordinary march of education in the Province alluded to, which all authorities agree as being a portion of the Dominion that has, during the last twenty years, made rapid strides in the paths of industrial and commercial progress. On the walls of the Ontario Educational Court are large photographs of the different scholastic institutions. Elementary Schools, Normal Schools, Model Schools, Art Schools, Mechanics' Institutes, Colleges, Convents, Seminaries, the University of Ontario, and other establishments for the education and improvement of the young man and womanhood of Ontario. Photography is one of the triumphs of modern science and ingenuity. It may be fairly considered a branch of modern education, inasmuch as it portrays and easily makes clear to the understanding scenes and places which could not be so well done by any amount of descriptive writing ; and placing in the Exhibition pictures of their educational establishments, the Ontario Government has acted wisely and well.

Everywhere in Canada the school-houses are, generally speaking, the largest and most conspicuous buildings in the villages and small towns, and this applies specially in the rich and fertile Province of Ontario, that directly and indirectly taxes itself rather heavily for the purposes of education, which is a department of the Provincial Government under the control of a responsible Minister. The people recognize the necessity and value of education in the promotion of industries and manufactures, as well as in the development of their country's many natural resources. On reflection, however, there is nothing very wonderful in the colonies endeavoring to make education as general and as practical as possible, because, as a rule, it is only men of natural enterprise and energy who emigrate, and it is, therefore, entirely in accordance with the law of progress that they shall, in the new countries of their choice, establish the most liberal and useful system of education they can devise. A man may be illiterate, but endowed by nature with large-heartedness and force of character, and such a man, by his vote and his money, will determine that his country and his children shall, intellectually, be superior to himself. This is in reality the secret of the great desire in the colonies to keep pace with the times in educational matters."

## CLASS 4.—SCHOOL FURNITURE AND FITTINGS.

School desks and seats were exhibited in the Educational Court by the Bennet Furnishing Company, London, and W. Stahlschmidt & Co., Preston. They were distributed throughout the Court in such a manner that, without obstructing the passages, the seats might be used by persons examining the exhibits. As over 5,000,000 persons visited the Exhibition, it is a safe computation to say that over 500,000 persons used these seats during the Exhibition, and it is gratifying to state, that at the close they were apparently in as good condition as when first screwed to the floor.

The Bennet Furnishing Company have established manufactories in England and Scotland, and have fitted up several large schools with Canadian desks and seats. Messrs. Stahlschmidt & Co. have opened up an agency in London.

The *Globe*, referring to the excellence of the school desks in the Ontario Educational Court, says:—

"Unfortunately, in this country, sufficient attention has not been directed by schoolmasters to the importance of providing desks and seats adapted to the requirements of children. We are told by persons in authority, that the death-rate of children is diminishing, in consequence of improvement in sanitary surroundings. We do not hesitate to say that the death-rate would diminish in a much greater proportion if proper school-desks and seats were provided for them."

## CLASS 5.—KINDERGARTEN MATERIAL.

Specimens of Kindergarten Furniture were exhibited by Selby & Co., Toronto. The smaller chairs, painted to represent the primary colors, were a novelty, and there were numerous applications for their purchase.

## CLASS 6.—PHYSICAL EDUCATION.

A large gymnasium was exhibited by the Department, but for want of sufficient room in the Educational Court, it had to be set up in the quadrant leading to the Albert Hall.

## CLASS 7.—TEXT BOOKS.

A large book-case, placed near the entrance to my office, contained samples of all the text books authorized for use in Public Schools, High Schools, and Collegiate Institutes.

The following notice of the New Canadian Readers, authorized by the Minister of Education, is from the *Schoolmaster*:—

"*The Ontario Readers.* First Reader (parts 1 and 2), and Second, Third and Fourth Readers. Toronto: Copp, Clark & Co.

These Ontario Readers are authorized by the Canadian Minister of Education for use in the public schools, and are fine specimens of what a set of reading books should combine. They begin with the elements in Part 1 of the First Reader, and gradually go on through the simplest primary exercises, until, in No. 4, we have selections from authors who stand in the front rank of English literature. High-class pictorial illustrations are a considerable feature in both parts of the First Reader, and materially assist teacher and scholar in surmounting the difficulties in the early stages. The Second Reader is adapted for a good second standard, the Third Reader for the next two standards, and the Fourth Book would suit the upper-classes in any school. It is a veritable storehouse of gems of modern English, and is as interesting to the adult and junior students in the mother country as we hope it proves to the adult and scholar in the great Canadian Dominion over the wide Atlantic. The prefaces and explanatory pages to each book are excellent accompaniments to the set. Such books are an honor to any country. If children are to be taught reading in a logical manner, and to have their intelligence developed on rational lines, and withal to receive encouragement in their daily tasks, books like the Ontario Readers must be successful in producing such results, or they can never be done at all."

*Canadian Drawing Books.* The following letters are from the most prominent and experienced teachers of drawing in the United Kingdom :—

Copy of letter from Miss Gann, Superintendent of the Female School of Art, under the patronage of the Queen, 43 Queen Square, Bloomsbury.

November 8th, 1886.

Dear Sir,—The five little books, "The Canadian Drawing Course," which you have been good enough to send me, as being specially designed for pupils in schools when trained teachers in drawing are yet unattainable, I think excellent for the purpose.

I might suggest, if you publish a further course, that it would be interesting, and would make a variety always desirable in teaching the young, if you could make use of other leaves and treat them as you have done the horse chestnut in Book 2.

Miss Wilson and myself were much pleased with our visit to the Educational Department of Canada in the Colonial and Industrial Exhibition, which you made so interesting by your explanations.

We considered the Elementary work exceedingly good and the designs especially so. I wish we could have specified some of the works which pleased us most, but unfortunately we did not take any notes at the time.

I have, etc.,
LOUISA GANN.

Copy of letter from Mr. J. Sparks, Superintendent, National Art Training School, South Kensington.

November 3rd, 1886.

Dear Dr. May,—I have to thank you for the valuable and interesting books you were good enough to send over to me.

The drawing books are good and carefully edited, but I am still of opinion that the Belgian system, which deals with drawing from the first, when children are five years old, has much to recommend it over drawing on paper, especially as, in this country at least, "cramming" for the Government paper is about all that is thought of in the freehand classes.

I am quite sure blackboard teaching to classes is the best means of developing children's thinking powers.

I remain, etc.,
J. SPARKS.

Mr. Sparks' opinion perfectly coincides with that of this Department. We are endeavoring to make blackboard teaching in drawing most prominent in all our educational institutions, and it is generally adopted in the Art schools, but, as subsequently explained to Mr. Sparks, drawing is comparatively a new subject in our public schools, and as the majority of our teachers have had no experience in this direction, the new series of drawing books are specially prepared to assist the teachers as well as pupils.

Extract from Mr. Bowen's report :

"*Drawing.*—By the kindness of Dr. May, I have been able to examine carefully the fine drawing-books of the 'Canadian Drawing Course,' and from the point of view of one fond of Art and a teacher keenly interested in Art teaching, I must pronounce them to be very good indeed. There are, however, one or two points with regard to them which I should like to put forward for reconsideration. If the size of the books is intended to indicate the size of the pupil's drawings, then I cannot but think them far—at least four times—too small. *The hand cannot be free* when the work measures no more than two or three inches in its greatest length ; while not only the hand, but the wrist often, and even the elbow sometimes, should be given free movement. The elaborate pictures of men and animals in some of the books sent in by these same schools were, I am sorry to say, in my opinion wholly unsatisfactory, and likely to do harm rather than good. On the other hand, there were some drawings of flowers (from nature) from the Ontario Art Schools, which were very good. So, too, the Model drawings from most of the High Schools and Collegiate Institutes were very satisfactory in regard to correctness and neatness, while these same Schools and the Mechanics' Institutes exhibited satisfactory, and in some cases excellent, specimens of geometrical drawing."

Mr. Bowen's objection as to the size of drawings is removed by the previous statement that these drawings are copied on the background by the pupils.

We perfectly agree with Mr. Bowen in regard to the pictures of men and animals. They are of no practical value, but as they were sent from schools which had scarcely commenced work in accordance with the new system of industrial drawing now made compulsory, it was considered advisable to exhibit them so as to compare the value of former school work with that of the present time.

### CLASS 8.—READING CHARTS, ETC.

The illustrated Reading Lessons exhibited by Messrs. Copp, Clark & Co., to accompany the First Readers, attracted much attention ; the clearness of type and excellence of drawing was much commented upon, and numerous applications were made for the purchase of the Tablet Reading Lessons displayed.

In this class, too, was a set of Tabulated Phonetic Alphabet Charts by Mr. Caleb P. Simpson, Leamington. These were of great interest to teachers, and especially those who had made a study of Phonotypy.

### CLASS 9.—DRAWING MODELS.

In this class were some excellent Drawing Models of common objects, also sets of Primary Canadian and Geometrical Models adapted to the Canadian Drawing Books, exhibited by Messrs. Selby & Co., Toronto.

### CLASS 10.—MUSIC.

Messrs. R. S Williams & Son exhibited a Public School Cabinet Organ, and Public and High School Piano in this class. As their instruments were frequently played upon by an expert during the exhibition, visitors had an opportunity of judging of the quality of tone, power, etc. Although the Public School organ is so light that it can be carried by a child from room to room, it is sufficiently powerful for large school rooms or outdoor exercises.

The Canadian School Publishing Co., Toronto, also exhibited Music Charts and Books in this class, and I am informed that they have already received orders from England for the Normal Music Charts.

### CLASS 11.—GEOGRAPHY AND ASTRONOMY.

In this class we had a large display of topographical illustrations consisting of Terrestrial, Raised, and Physical Globes, and a collection of School Maps and a Map Case with patent springs exhibited by the Map and School Supply Co., Toronto ; also Astronomical Illustrations, embracing Celestial Globes, Drawings, Astronomical and Physical Maps and Charts, etc., and a Newtonian or Astronomical Globe recently invented by Mr. Turnbull, Toronto, and published by Messrs. Selby & Co., Toronto.

### CLASS 12.—CHEMISTRY.

This class contained some excellent Chronological Charts, including Merritt's Historical Tree of British North America.

### CLASS 13.—ETHNOGRAPHY.

This class was represented by busts of celebrated Canadian Statesmen, Divines, Educationists, etc., together with a collection of colored portraits of Indians.

### CLASS 14.—ANATOMY AND PHYSIOLOGY.

A large glass case at the end of the Court contained Anatomical Models, which included a Manikin or Model of the human body, showing its internal structure.

This case was a great attraction, and was daily surrounded by crowds of persons.

### CLASS 15.—ZOOLOGY.

In addition to the ordinary Zoological Charts for school purposes, we exhibited a full set of Audubon's Animals of North America, chiefly of the natural size, colored from nature, with common and technical names attached. The Ontario Agricultural College, Guelph, also exhibited collections of insects injurious and beneficial to vegetation.

### CLASS 16.—BOTANY.

The Models of flowers exhibited in this class were of great interest to teachers, and were acknowledged to be of great value for illustrating Physiological Botany. In addition we exhibited Botanical Charts, Flowers, Plants, and Object Lessons. The Ontario Agricultural College also exhibited specimens illustrating Systematic and Economic Botany used for teaching purposes.

### CLASS 17.—GEOLOGY AND MINERALOGY.

This class was well represented by collections from the Ontario Agricultural College, including specimens illustrating the Geology of the Province of Ontario, used for teaching purposes, including the different geological groups, rocks which chiefly compose the earth's crust, minerals which constitute the majority of rocks, animals which have influenced the formation of soil, etc., also a large mineralogical collection labelled to show species, crystallographic forms, chemical formula, and locality.

### CLASS 18.—PHILOSOPHICAL CHARTS.

This class was represented by the ordinary School Charts for teaching Natura Philosophy.

### CLASS 19.—PHYSICAL AND CHEMICAL APPARATUS.

The apparatus exhibited filled several large glass cases, and is adapted for experiments in Matter, Force and Motion, Gravitation and Molecular Attraction; Hydrostatics,, Properties of Gases, Acoustics, Heat, Light, Magnetism, Frictional Electricity, Dynamical Electricity, and Chemistry.

The following is an extract from Mr. Bowen's report :—

"The collection of apparatus was very large and very varied, and contained far more than I had time to examine or have space to write about. The general result was very satisfactory. The appliances for teaching Physical Science were very complete and good of their kind. The maps and the globes were good, especially the latter; and I noticed a particularly clever time-globe, invented, I was told, by Mr. Turnbull, of Toronto. The glass models of solids and their sections, and of crystals, were well worth notice; and in its way nothing could be better than the anatomical manikin, which could be taken to pieces and examined and then built up again. With it there were some well-executed models of parts of the human body for the teaching of physiology. But perhaps the most striking of all was the collection of geological specimens sent by the Ontario Agricultural College, and the Experimental Farm (Guelph), illustrating the rock formation of Ontario. Nothing could have been better, or better arranged. The dissected map of the southern part of Ontario, used by the Institution for the Blind at Brantford, struck me as clever and worthy the attention of all teachers of the blind. The Bennett Furnishing Company (London), exhibit an excellent oak school-desk for two, solid, steady, and marvellously cheap; while the public school organ of Messrs. R. S. Williams and Son (Toronto), is admirably suited for its purpose."

Extract from the *Pharmaceutical Journal*:—

"The Legislature of Ontario is very liberal in its votes for the support of scientific and educational institutions, Evidence of this may be seen in the Educational Court of Ontario before referred to, which is well worthy of a visit to all interested in education and science. Apart from the large and varied collection of pupils' work from Public and Grammar Schools, Art Schools, Mechanics' Institutes, etc., there is an excellent display of physical and chemical apparatus, botanical and geological charts, botanical models, specimens of plants illustrating systematic and economic botany, insects injurious and beneficial to vegetation, geological and mineralogical collections, including rocks which chiefly compose the earth's crust, minerals which constitute the majority of rocks, animals which influence the formation of soils, etc., such as are used in Canadian schools and colleges. Altogether the exhibit is probably the best and largest display of general educational work and appliances ever exhibited by any one British colony."

In this class was a collection of School Apparatus manufactured by the Map and School Supply Co., Toronto. The *Globe* remarks on their exhibit:—

"The Map and School Supply Co., Toronto, has a large and varied assortment of educational appliances of their own manufacture in the Canadian Court. They are the largest manufacturers of school apparatus in the Province of Ontario. Mr. Chas. Potter, the senior member of the firm, supplied the globes and school appliances to the Education Department for over twenty years, during which time schools were supplied from the Educational Depository. Some of the apparatus, globes, anatomical models, etc.. exhibited by the Education Department are of his manufacture, and there is no doubt that, from his long experience, he is a thoroughly practical man, well skilled in the construction and uses of all kinds of instruments for illustrating the principles of physics, chemistry, etc. This company's exhibit is classified in the official catalogue under the following heads: 1. School Furniture and Fittings, including numeral frames, with or without blackboards, sheepskin and fluted erasers, etc.; 2. Topographical illustration, including maps of the continents, a new and improved school map of the Dominion, showing the new territories, railroads, etc., and an ingeniously constructed map case, which protects the maps when not in use, and is so constructed that the maps are not liable to the wear and tear found in ordinary map cases. 3. School Apparatus. In this department they have a large display of instruments for experiments in pneumatics, hydrostatics, hydraulics, electricity, heat, etc. The exhibit is a useful one, and the school teachers of Ontario may justly feel proud that they have apparatus manufactured in their own Province which will bear comparison in excellence of manufacture with those from older countries."

## CLASS 20.—PUPILS' WORK—KINDERGARTEN.

Exhibits in this class were sent from the Provincial Model School and the Public School, Toronto.

Mr. Bowen says:—

"*Kindergarten Work.*—I learnt with the greatest satisfaction that the Kindergarten, in connection with the Public School system, has been introduced into Toronto, Hamilton, and Berlin; that at Toronto *all* primary teachers receive Kindergarten training; and that each of the Provincial Normal and Model Schools at Toronto and Ottawa has a Kindergarten teacher on its staff. This is exactly as it should be, except, perhaps, that *all* teachers whatsoever would be immensely benefited by, and should be required to possess an acquaintance with Frœbel's principles and methods. The above arrangements have only been in full force for some two or three years, so that the results shown are necessarily somewhat immature, especially in the examples of color. I noticed some maps on glass which seemed to me to have aims other than Frœbelian—to indicate an endeavor to impart to children information which they are not ready to make use of for themselves; while some of the wool-knitting was, I imagine, a little too elaborate for children of the Kindergarten age (4 to 8). I dare not venture to criticise further, for it is essentially the spirit, manner, and method in which the children are led to work, and not the work itself, which renders their employment a Frœbelian *training* instead of a mere mechanical occupation ; and it is just these three that no exhibition of work done can show. I can say, however, that the little people already evince considerable neatness and skill in their folding, and cutting, and pattern making."

## CLASS 21.—PUPILS' WORK—PUBLIC AND SEPARATE SCHOOLS.

This class was represented by a large number of schools in cities, towns, villages, and rural districts, and included nearly 10,000 separate exhibits of Copy Books, Drawing Books, Maps, Arithmetic, etc.

In addition, specimens of pupils' work were sent from the Normal and Model Schools at Toronto and Ottawa, and the High Schools and Collegiate Institutes.

The *Canadian Gazette*, referring to the galleries, says :—

"Especially interesting in this gallery are the specimens of work from the 5,300 public and separate schools of the Province. Here is represented work done by children from seven to fourteen years of age. The drawing and map work is excellent, especially in the Toronto public schools, and in the separate schools of Ottawa."

Extracts from the *Schoolmaster* :—

"There are in the Canadian Education Court no less than 1,273 exhibits in connection with the work of the public schools. These have been arranged and classified by Dr. May, under whose guidance we made a careful survey of selected specimens, which have been sent over as fair samples of the daily outcome of the Normal and Model Schools. the Public and High Schools, and the Collegiate Institutes. The Kindergarten work is excellent of its kind, and shows the results of the training in the Provincial Model School, Toronto, and of the Public Schools of the same city. From 5,316 schools there has been sent a varied and excellent collection which represents the ordinary work done by children from seven to fourteen years of age.

The drawings exhibited have been taken from the work in progress in the schools in the middle of the term, and, although showing considerable skill, are scarcely a fair example of the improvement which can be made in a full session. We can speak favourably of the specimens which were placed before us by Dr. May. In all the departments of school work which we have specified there are excellent examples of what can be accomplished in the free institutions of a country which has not yet resorted to the degradation of its schools by the infliction of percentages, or the illusory payment by the pass."

Further extracts from Mr. Bowen's report :—

He says : "I will now go more into details, and I trust that it will not be considered presumptuous if here and there I offer a few suggestions. I do not pretend to have made by any means an *exhaustive* examination of the material exhibited, so that no inference whatever must be drawn from my silence on any point, or any omission to mention any school or other institution.

*Writing.*—On the whole the writing was highly creditable in all grades of schools, especially in the case of the girls. I was particularly attracted by the clean finish of the work sent in by the fifth class of the Ottawa Model School and the Waterford Public School—in both cases girls ; while the Hamilton Collegiate Institute showed that good writing is not incompatible with a higher education. Indeed, it was surprising, and a matter of decided congratulation, how very little distinctly bad work was to be found at all amongst so many hundreds of specimens. The one fault to be found—and it was quite a general one—was a slight tendency to too much 'flourishing,' even in the best specimens. It was evident that the very satisfactory results exhibited had been obtained by constant care and watchfulness, for there seemed to be nothing new or particularly striking in the system of exercises employed. I cannot but think, however, that even better results would be got—or at any rate time would be saved—if elementary freehand drawing were made more distinctly *introductory* to, rather than only *supplementary* to, writing. I do not mean by this that drawing should make writing one of its chief aims, but that it should come before and prepare the way for writing.

*Composition.*—Many very creditable essays were exhibited—short stories, descriptions, accounts of the subjects treated in object lessons, etc. I was somewhat surprised however, to find that grammar is held to be the introduction to composition. The right introduction is literature—at least so it seems to me—beginning with the simplest poems and stories, and rising gradually to the more difficult—from *John Gilpin* to Burke and Shelley and Shakespeare. I doubt whether any of our best writers could pass, or could ever have passed a respectable examination in formal grammar. We learn to write well by acquaintance with good writing. However, as I have said, many of the essays shown were very creditable; though, if I remember aright, this was generally in the case of elder pupils who would have already studied some literature.

*Arithmetic.*—Of this subject there is not much to be said. Except in the case of Toronto, the work sent in by the Public Schools, though satisfactory in most cases as to method, was hurried and untidy. Amongst the specimens of arithmetic and book-keeping sent in by the Ryerson, Wellesley, Dufferin, and Jesse Ketchum Schools, I noticed that a very large majority were decidedly good—well reasoned, and the reasoning well set forth, and the book-keeping neatly written.

*Geography.*—I looked over several papers of questions and answers on this subject; but found all of a very ordinary type. As to Map-drawing, the smaller maps were, in general, neat and tolerably accurate; but I did not notice that they were drawn on any particular plan. I should like to recommend a modification of Mr. Swinstead's 'central-line' plan as a good one. The larger colored maps deserve praise, especially some of those from the country schools. Several, however, were too crowded with names. It struck me that a good deal of time must have been spent over these maps, perhaps more than map-drawing really deserves.

*History.*—The history answers in the papers I looked at were intelligent, and on the whole satisfactory. May I hint that pictures again would considerably help the boys and girls to realize what they read about—pictures of individuals, places, buildings, scenes, etc. Dr. May told me that it is recommended for the use of High Schools that small busts of celebrities be used with the ancient history. This seems to me an excellent idea.

*English Grammar.*—The papers on this subject seemed generally satisfactory—the analysis and parsing were in most cases well done. I do not, however, consider it altogether a good plan to allow the use of 'forms' in analysis. I see that the 'general directions' lay down that the elementary parts of grammar should be learnt inductively, which is excellent. But the traces of induction were not very clear in the papers."

Mr. Bowen's concluding remarks:—

"I feel that I have not noticed half as much as I might have done, had I had more time at my disposal; and I dare say some of the teachers of Canada—my *fellow* teachers, may I not call them?—will not agree with all of my remarks. But of this let them be sure, that I have been very strongly impressed with the educational activity and efficiency of Ontario; that I have derived not only considerable pleasure, but also considerable profit from their admirable exhibit, which does such high credit to everyone concerned; and that I am more than ever convinced that the Old Country has already very much to learn in educational matters from her great daughter beyond the sea. May that daughter go on and prosper continually—and she *will* prosper, no one can doubt, as long as—in the words written proudly over her Court in South Kensington—she makes the goodness of the education she so liberally gives one of her chief claims to glory."

See also the notice on pupils' work given in the description of Educational Court, by the editor of the *Globe Colonial Exhibition Supplement.*

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## PART II.

## MECHANICS' INSTITUTES.

About fifty Mechanics' Institutes sent specimens of Drawing, including Freehand Geometry, Perspective, Model, Blackboard and Primary, Machine Drawing, etc. Several beautiful models were also exhibited by members of Institutes, and some excellent specimens of wood-carving.

The following extract on Mechanics' Institutes is from the *Globe*:—

"We append some further notes on the exhibits in the Ontario Educational Court from institutions partly under the control of the Provincial Government. It should be noted, to the credit of the Province, that the Ontario Government is very liberal in encouraging mechanics and artisans to improve their spare time by reading and studying the different branches of science applicable to their respective pursuits. It is mentioned in the Exhibition catalogue, prepared by Dr. May, that the Mechanics' Institutes receive from the Government two dollars for every dollar expended up to the sum of 400 dollars per annum. The value and extent of this pecuniary support may be guaged, from the simple fact that last year no less than 147 of these Institutes were in existence. Respecting the work accomplished at them, it is apparent that drawing, suitable for mechanics, is one of the most popular subjects of study. As many as fifty institutes send to the Exhibition specimens of examination work in freehand, geometrical, perspective, model and memory drawing. In addition we notice the following :—

Carleton Place Mechanics' Institute sent a large collection of specimens of machine drawings ; these, we understand, are chiefly done by workmen employed in the workshops of the Canadian Pacific Railway. They exhibit considerable skill, and reflect great credit on the teachers, who, we are informed, were trained at South Kensington. Probably the most interesting, ingenious and beautiful piece of work showing industry and perseverance, is a working model of an English locomotive engine, made to the scale of one inch to the foot, exhibited by Mr. Lacey R. Johnston, President of the Institute. This model has been greatly admired by persons interested in machinery, who pronounce it to be one of the most perfect and ingenious working models ever exhibited. This same Institute also contributes a beautiful ornamental inlaid table, the work of Mr. A. Parker, and a model of dwelling-house or shanty as built by the early settlers in Canada by Mr. James McVety.

Guelph Free Library exhibits some very choice specimens of carving in wood by Mr. J. O'Brien and several students.

Garden Island Mechanics' Institute is well represented. Mr. Anthony Malone, President of the Institute, exhibits a perfect model of a dram of timber as prepared for running the rapids of the River St. Lawrence. Ten or more of these drams are lashed together and called a raft. It is remarkable that the rafting and forwarding of square hewn timber for the Quebec market was commenced at Garden Island, from which this model is sent. In 1844, Mr. Dileno Dexter Calvin established a business for forwarding timber at Garden Island. This business, including ship-building, has been carried on by the same family up to the present day ; it is now a prosperous town with one of the best Mechanics' Institutes in Canada. During the past season, 1885, there was forwarded from the port of Kingston to Quebec, square oak timber, over 1,700,000 cubic feet ; elm and ash, over 1,000,000 cubic feet ; square and waney pine, over 2,700,000 cubic feet. The vast forests of Canada, which are said to be practically inexhaustible for home consumption and the probable demands of commerce for centuries to come, are a source of great wealth to that country. The exports of timber last year amounted to over $20,000,000.

Mr. Archibald Cumming exhibits a very beautiful working model of a harbor tug steam engine from the same Institute.

Galt Mechanics' Institute sends some excellent specimens of machine drawing, done by workmen employed in the Grand Trunk Railway workshops.

Port Perry Mechanics' Institute exhibits a large collection of drawings, including freehand. linear perspective, practical geometry, mechanical drawing, shading, etc.

Whitby Mechanics' Institute contributes a collection of drawings in freehand, perspective, and shading and outline from the round.

The people of Ontario are to be congratulated on the excellence of this portion of their exhibit, which has largely contributed to show visitors at the Exhibition the industry, zeal and perseverance of the working classes of the Dominion in obtaining practical knowledge, invaluable to them in their daily life, and in rendering them intelligent and self-reliant citizens."

The *Canadian Gazette*, in a lengthy article on Education in Ontario, observes :—

"That since the time of Confederation, Mechanics' Institutes have been established, an annual grant given to each Institute by the Local Government, provided it supplies a library, reading-room, and evening classes. This important branch of the public service has been in the hands of the Provincial Education Department since 1880, and is now directed by the Minister of Education, to supply practical education of value to adult artisans. There are about 150 of these Mechanics' Institutes in operation throughout Ontario, in a population of only two millions, and of these between sixty and seventy are now branches of the Art schools. The work from several Institutes is now on display in the Court. From it may be gathered that a practical knowledge of drawing is imparted—first, by freehand ; second, by geometry and perspective ; and third, by industrial drawing. The industrial designs prepared at these Mechanics' Institutes have elicited general commendation. Mechanics, practical chemistry, and the various branches of physics, are also taught in these Institutes, thus bearing directly upon the textile and other manufactures of the country."

The *Press* says :—

"The work from the Mechanics' Institutes has attracted a great deal of attention from manufacturers and others in connection with the growing recognition of the importance of training mechanics and artisans in industrial drawing."

## PART III.

## ART SCHOOLS.

The students of Art Schools in Toronto, Ottawa, London, and Kingston, contributed largely to the success of the Educational Exhibit. The large collection of Drawings, Paintings, Carving on Wood, Modelling on Clay, Plaster Casts, Painting on China, etc., were much admired, and especially so the specimens of Industrial Designs, which were acknowledged by experts to be of considerable merit, and valuable exhibits from a new country, showing as they do that encouragement is given by the Government to the development of artistic work applicable to trades and manufactures.

The Marquis of Lorne was so much pleased with some of the designs for wall paper from Toronto, that he recommended me to place them in the hands of some English manufacturers. This I could not do, as they are the property of the students.

Before leaving England, having received an intimation that Her Majesty the Queen would be pleased to accept a few specimens of Art school work from Ontario, I selected some exhibits from the different departments, and forwarded them with a letter referring to our advancement in industrial Art education during the past few years, and the great interest H. R. H. the Princess Louise and the Marquis of Lorne had taken in the promotion of Art work during their residence in Canada.

In reply, I received the following letter from General Sir Henry Ponsonby, Private Secretary to the Queen:

Osborne, January 8th, 1886.

Dear Sir,—The articles forwarded by you arrived here to-day, and I have given them to the Queen, who was very much pleased with them, and has commanded me to thank you for sending these well-executed specimens of the work of the Students of the Art Schools, Education Department, Toronto.

I have the honor to be, Dear Sir,

Yours faithfully,

(Signed) HENRY F. PONSONBY.

Each of the Art Schools had separate compartments for the display of their exhibits.

The British press made frequent notice of the excellence of this section of the Educational Court.

The following extract is from the *Canadian Gazette*:—

"The work from these Art Schools of Ontario is such as would do credit to many older countries. The origin of some of the exhibits is interesting. In view of the Exhibition, the Ontario Manufacturers' Association offered medals for the best designs for various manufacturing purposes, and Dr. May, as Superintendent of Art Schools, at once issued circulars to the schools, notifying them to prepare forthwith various designs. The Toronto School designs were prepared for paper-hangings; in Ottawa for iron-work, such as railings, fences, etc.; in London, designs for sideboards, etc.; and in the Kingston School for mantlepieces and overmantles. Considering, then, the fact that no selection is made in the exhibits in this class, all the competitive designs being shown, and that but a fortnight was allowed for the work, Ontario has reason to be proud of the result. It unquestionably forms a most important part of the Court. From the Toronto School of Art there also comes excellent work in electro-metallurgy taken from plaster casts and electrotypes from nature, as well as models in clay, and plaster casts from clay. Good industrial designs are also shown. The Art School of London comes out strongly in painting on china. Even the baking is done at the school, and the product is excellent, illustrating a frequent means of livelihood for young ladies in the Province. By the Kingston exhibits mechanical work is illustrated in such a way as to call forth the admiration of the principal of the South Kensington Art School. The Ottawa designs, especially the original industrial designs, are also excellent, and the complete system by which the eye of the pupil is trained to exactness of detail cannot but elicit admiration. Carving in wood is also shown from the branch Art schools, of which there are over fifty established at Mechanics' Institutes, all receiving Government assistance. The specimens from Guelph speak well for the progress made in this section.

Extract from Mr. Bowen's report:—

*Art.*—In passing on to the higher departments of Art proper, I feel myself to be getting on to uncertain ground, which is usually set about with warnings to tresspassers, and notices 'not to touch the flowers.' However, as I have little but praise to bestow, I hope that any accidental impiety will be forgiven me. I will try to keep on the gravel walks. First, then, I noticed some very striking needlework (flowers) from Loretto Convent, (Hamilton), and some really beautiful artificial flowers from the Loretto Abbey (Toronto).

The Ladies' College, at Brantford, have also contributed some rather ambitious work in oil and water-colors. The machine drawing and the carving in wood sent in by the Mechanics' Institutes, formed a most interesting collection, including many specimens of really excellent work; as did also their freehand drawings. But the most attractive and most memorable exhibit of all was the large and varied collection of Art work from the Art Schools of Toronto, London, Ottawa, and Kingston. The time at my disposal was all too short to allow of my doing full justice to all its many merits in detail. But the general impression made on me—especially in the case of Ottawa—was one of considerable pleasure, and—if I may be honest without offence—not a little surprise. The mere enumeration of the varieties of work from the Art Schools is sufficiently striking; life studies, oils and water-colors, freehand drawings of every kind, industrial designs, architectural and machine drawings, shading from the antique and from the flat, chasing in brass, modelling in clay and plaster casts from clay, carving in wood, painting on china, and even electro-metallurgy and repoussè work. It is somewhat difficult to know what to mention amongst so much. I may say, however, that the advanced work generally of the Ontario School of Art (Toronto) was excellent; the wall-paper patterns showed great taste in design and coloring; the drawings from the antique were very good indeed, but perhaps a little too heavily shaded; and the wood-carving, metal-work, and plaster casts were, in many cases, highly creditable. I noticed, by the way, a portrait of Dr. May in plaster, which, though undoubtedly like, was by no means flattering. The Western School of Art (London) showed some very good painting on china. The Ottawa School of Art deserves very decided praise. The paintings of flowers and plants, with industrial designs invented from them, were delightful—excellent in form and composition and color. The life-studies were very good indeed; and the water-colors were highly creditable. The drawings of a wrought-iron fence, and the collection of industrial designs, which were shown at the recent Antwerp Exhibition, deserve very decided praise. From the Kingston Art School the original designs for industrial uses were again strikingly good.

## PART IV.

## INSTITUTIONS FOR THE BLIND, DEAF AND DUMB.

Exhibits were sent from the Ontario Institution for the Education of the Blind, Brantford, consisting of appliances for teaching and pupils' work; similar exhibits were also sent from the Ontario Institution for the Education of the Deaf and Dumb, Belleville.

These exhibits were greatly admired; the ladies' work from the Blind Institution, as well as the ingenious appliances for teaching, came in for a full share of praise: the photographs from Belleville, showing the employments as well as amusements, were also of great interest.

Probably a larger number of persons made enquiries about these Institutions than might have been expected, because a Royal Commission was sitting which had been appointed to institute enquiries as to the systems adopted by different countries for the instruction of the Blind and Deaf and Dumb. It caused great surprise to visitors when they found that these excellent institutions are under the management of the Government, as they did not expect a colony would thus take the initiative in providing institutions under Government control for the education of our fellow citizens who are deprived of seeing or hearing.

The press made comments on this subject because similar institutions in the United Kingdom are dependent for support upon voluntary subscriptions.

The following letter refers to one of these notices :—

*Royal Commission of the Blind, the Deaf and Dumb, etc.,*
32 ABINGDON STREET,
WESTMINSTER, 6th March, 1886.

DEAR SIR,—I have been favoured with an extract from the *Canadian Gazette* of October 28th, which states that you could furnish us with ample information regarding the Institution of the Deaf and Dumb and Blind in Canada. If it were in your power to do this it would be gratifying to the Commission. We are most anxious to ascertain the practices and general views of our Colonies and of foreign countries, so as to enable us to report fully on the matter to the Queen with a view towards legislation.

I remain, etc.,
C. E. D. BLACK.

I made an appointment with the Secretary, and afterwards sent all the printed reports, etc., in my possession, including a special report by the late Rev. Dr. Ryerson on the Education of the Blind and Deaf and Dumb in Europe and the United States.

Extract from *Canadian Gazette* :

"We find that Ontario has taken a decided lead of England in the provision of free education for the deaf and dumb and blind. The Ontario Institution for the Deaf and Dumb is at Belleville, and is open for a period of seven years to all deaf-mutes from seven to twenty years of age who are not deficient in intellect, and are free from contagious disease. This institution was established by the Ontario Government in 1870, at an expenditure of 200,000 dollars. The whole tuition is free, but those who are able to pay are charged 50 dollars (£10) a year for board, and non-residents in the Province 125 dollars (£25) per annum. The modes of instruction are the most modern known to the civilized world, following what is termed the 'combined' scholastic and industrial system. Every attention, too, is paid to physical training. The gymnasium, games, and calisthenic exercises form an essential part of the curriculum, and a glance at some photographs of the members of the Mute Pantomime Club and the Football Club will certainly astonish those who are unaccustomed to see in deaf-mutes such a high development of mental and physical powers. The Ontario Institution for the Blind was established at Brantford by the Ontario Government in 1873, at an expenditure of 22,000 dollars. The course of instruction is divided into three departments. In the literary department a sound English education is given. The musical department embraces instruction in pipe and reed and string instruments, and it is worthy of note as showing the high standard attained that several ex-pupils of the institution are employed as tuners by Messrs. Mason & Risch, the well-known pianoforte makers of Toronto. Then, thirdly, there is the industrial department, comprising instruction for male pupils in basket and chair making and pianoforte tuning, and for females in sewing machine, sewing, embroidery, and kindred work. The blind institution is thus supplementary to the public school system of the Province, and admits those whose sight is so impaired as to prevent their receiving instruction by the ordinary methods. Hence it is not necessary for a pupil to be entirely blind to benefit by the advantages of the institution. The models used for the manufacture of baskets, etc., are claimed to have considerable advantages over those in general use ; while the remarkable crochet, bead, and other work which is contributed by female pupils, is a powerful testimony to the efficacy of the methods adopted. Natural history is also taught at schools, pupils being accustomed to the forms of animals by excellent mounted specimens. Another exhibit from the institution is worthy of note. It is a map of Ontario, dissected so that each part, representing a county, can be taken away. On the face of the map the rivers, boundaries, railways, towns, cities, etc., are depicted by means of indentations and small nails of various sizes. A child, thus guided by the shape of each county, the identations, and the small nails, is able to gain an accurate knowledge of the geography of this Province such as could not otherwise be imparted."

## PART V.

## COLLEGES OF AGRICULTURE, VETERINARY SCIENCE, ETC.

The Ontario Agricultural College and Experimental Farm, Guelph, was well represented. In addition to Statistical, Experimental, and other large Charts and photographs beautifully mounted, this Institution exhibited very valuable collections of Geology and Mineralogy, Plants, Models, etc., used for teaching purposes; also Agricultural seeds, collections of insects, etc.

The whole exhibit filled over twenty small glass cases besides covering several hundreds of feet of wall space.

Application was made for the loan of a portion of these exhibits for the Agricultural Exhibition at Norwich. I sent some charts, etc., and subsequently received a letter from Mr. Dyke, Emigration Agent for the Dominion, stating that some of the leading continental agriculturists were desirous of getting copies of these charts for their colleges.

I may state that the Ontario Agricultural College ranks very high in the estimation of the old country. I was frequently told by men of experience, acquainted with the methods employed for teaching Agriculture in different countries that there was no Agricultural College in the world superior to the Ontario Agricultural College for imparting instruction to young men for practical farming.

I had so many enquiries as to the terms, etc., that I thought it desirable before leaving England to publish a short description of this Institution, and accordingly prepared a long letter, which, through the courtesy of the editors, was printed in the *Field*; the text of this letter was copied in other papers. The following is from the *Globe*:—

## "THE ONTARIO AGRICULTURAL COLLEGE.

"In consequence of numerous enquiries as to the facilities for obtaining in Canada thorough education in practical farming, Dr. May contributes to the *Field* a brief account of the Agricultural College maintained by the Government of Ontario at Guelph. He writes:—

'The Ontario Agricultural College and Experimental Farm is situated near the city of Guelph, in the centre of an extensive agricultural and stock-raising district. This institution, established by the Government under the administrative control of the Commissioner of Agriculture, has for its object—1, to give a mastery of the practice and theory of husbandry to young men engaged in agricultural or horticultural pursuits, or intending to engage in such; and 2, to conduct experiments tending to the solution of questions of material interest to the agriculturalists of the province, and to publish the results from time to time. The college buildings are very spacious and commodious, and the farm consists of 550 acres, about 400 of which are cleared. It is conducted by an able staff of professors and instrnctors, and fitted with modern appliances for giving a thorongh and practical knowledge of every branch of agriculture.

'Professor Sheldon, of the Wilts and Hants Agricultural College, England, in a recent report says: 'It is a flourishing, though quite a young institution; and its influence is being felt in the agriculture of the province. The students receive an agricultural education in which science is happily blended with practice, and theory is borne out by demonstration.'

'The instruction given at the institution is embraced under two heads—a course of study and a course of apprenticeship. The course of study is divided into five departments: 1. Agriculture, including reclamation of lands; preparation, cultivation, and succession of crops; improvement of soils and lands; breeding, rearing, and feeding of animals; implements of the farm; general economy and business of the farm; arboriculture, etc. 2. Natural science. 3. Veterinary science. 4. English and political economy. 5. Mathematics and book-keeping.

'The course of apprenticeship is divided into five departments: 1. The farm department, including dairying. 2. The live-stock department. 3. The horticultural department. 4. The mechanical department. 5. The experimental department. In these departments the students are required to work every alternate afternoon, and for one hour every morning. For this labor they are paid at a rate per hour fixed by the farm superintendent, and the payments are credited to the board accounts.

'Young men whose parents are non-residents in Ontario, are permitted to enjoy the advantages of this institution on the payment of the following fees: 1. Those who have served an apprenticeship of one year on a Canadian farm, £10 per annum. 2. Those who have not served an apprenticeship on a Canadian farm, £20 the first year, and £10 the second year; board, lodging, and light, 10s. per week. About thirty per cent. of the students are from other countries, including the United Kingdom, the United States, etc.

'In a brief sketch it is, of course, impossible for me to point out all the advantages young men, intending to become practical farmers, can obtain by attending the Ontario Agricultural College, but I will enumerate a few of them. Students have an opportunity of becoming fairly skilled in the general work of the farm. A portion of the farm is laid out in small plots, and a series of experiments with cereals, roots, grapes, manures, and various modes of management is regularly and systematically carried on from year to year. In the live-stock department there are nine breeds of cattle, nine of sheep, and three of pigs, kept for the purpose of instruction, and experiments are made to test by feeding, the comparative value of different kinds of feed. As an illustration of the practical character of this kind of work done at the farm, I may refer to the large charts exhibited by this institution in the Ontario Educational Court at the Colonial Exhibition, showing food in cattle life, ten years at the farm ; milk per season, 12 cows ; chemical analysis of milk, 11 cows ; cream per cent., 11 cows ; butter globules, result of twenty-one microscopic observations at farm, 12 cows ; butter per 100 lb., milk and cream, 11 cows ; cheese per 100 lb., milk and cream, 11 cows. I may remark, *en passant*, that some of the leading Continental agriculturists have applied for copies of these charts for use in their colleges. The student can also obtain a practical knowledge of gardening, as there are three greenhouses, a large kitchen garden, a vinery, a 30-acre lawn, an arboretum, and a large variety of fruit and ornamental trees. He is also trained in the use of carpenters' tools—a most invaluable acquisition in pioneer life. He obtains a knowledge of the structure and functions of farm animals, and the most approved methods of treating and preventing diseases to which such animals are liable ; and, finally, I may say that, by the systematic teaching employed, his mind is expanded, his reasoning powers increased, and he becomes an ardent admirer of nature, and a nobler specimen of true manhood.

'Now, a few brief words showing why Ontario is considered such a bonanza by parents desirous of educating their children in that grand science which makes the true nobleman of nature. The Province of Ontario embraces an area of about 200,000 square miles, nearly 80,000 more than the United Kingdom. It is enormously rich in minerals ; its forests are so vast that they are capable of supplying all the timber required for home consumption and every probable demand of commerce for centuries to come ; its rivers and lakes are abundantly supplied with fish, and its forests with game. It is famous for oil-springs and prolific salt-wells ; but the great element of national wealth is its soil and the products thereof. The Hon. David A. Wells, an eminent American statesman, in an article in the *North American Review*, says : 'The Province of Ontario is as fair a country as exists on the North American continent. It is the natural habitat on this continent of the combing-wool sheep. It is the land where grows the finest barley. It raises and grazes the finest of cattle, and its climatic conditions, created by an almost encirclement of the great lakes, specially fit it to grow men. Such a country is one of the greatest gifts of Providence to the human race, better than bonanzas of silver, and rivers whose sands contain gold.' I may also remark that the climate of Ontario is one of the most pleasant and healthful in the world ; the old description of Canadian seasons—six months of summer and six months of winter—has no application whatever. The winter in the southern part of Ontario usually begins about Christmas, and lasts until the latter part of March ; further north it begins about the middle of December, and breaks up during the first or second week in April.

'The exports of agricultural products from Ontario are annually increasing. As the agricultural statistics show the total exports of the Dominion, it is impossible to give the exact proportion exported by the Province of Ontario ; but it is usually computed that Ontario furnishes five-sixths of the whole. The value of exportations were as follows in 1885 : Horses, $1,640,506 ; cattle, $7,508,043 ; sheep, $1,264,811 ; cheese, $8,902,115 ; butter, $1,430,905. During the past half century the number of the population (now over 2,000,000) has been multiplied by seven, and the area of land in occupation (now 23,300,000 acres) by thirteen, and this extraordinary development has taken place by steady and continual progress, without any phenomenal expansion followed by collapse.

'In conclusion I may remark that there are 129 free grant districts in Ontario, each containing 50,000 to 60,000 acres, and other districts will be opened up as railroads and colonization roads are constructed. By an Act passed during the present year, the head of a family can obtain a free grant of 160 acres of land, and single men, over eighteen years of age, 120 acres. The amount of money required to make a successful settlement upon a free grant is from £60 to £100. Improved or cleared farms can easily be obtained by those desirous of residing near old settled districts. The average price for good farms, including buildings, in the old settlements, is from £10 to £15 per acre ; but in new settlements, partially cleared, farms can be purchased for from £1 5s. to £3 per acre.

(Signed) S. PASSMORE MAY, M.D.

This letter gave rise to considerable correspondence, in addition to enquiries from persons with from £1,000 to £5,000 capital anxious to benefit themselves. Further information was asked for in regard to the College, by parents intending to send their sons to Canada, and in more than one instance propositions were made that the parents themselves should purchase farms and reside in this country so soon as their sons could undertake farm management.

The Ontario Veterinary College also had an exhibit in this class.

The following extract from the *Globe* sufficiently explains the excellence of this exhibit :—

" ONTARIO VETERINARY COLLEGE, TORONTO.—Probably one of the most attractive exhibits in the Educational Court are the large photographs from the Ontario Veterinary College, consisting of views of the College, dissecting rooms, operating rooms, portraits of students, professors, and principal, etc. The Ontario Agricultural and Arts Association was, by Act of Parliament, empowered to establish a Veterinary College, for the instruction of pupils in the science and practice of the Veterinary Art, and as to the breeding of domesticated animals. So far back as 1862 a series of lectures on agriculture was given at Toronto University College, and Professor Smith, the present Principal and Proprietor of the Ontario Veterinary College, gave lectures in connection therewith. In 1869 part of the premises now occupied was built, and the institution has gradually grown until it has reached the proud position of being one of the largest and most popular veterinary colleges in the world. Over 600 students have graduated from this College, and there are more than 300 students in attendance during the present session. There is a full staff of professors, who lecture on anatomy, physiology, materia medica, chemistry, the diseases of domesticated animals, pathology, etc. There are large and well-ventilated dissecting rooms, an excellent museum and a Veterinary Medical Society, which meets twice a week for the discussion of subjects in connection with the advancement of Veterinary Science. The opportunities for actual practice are very great ; the total number of cases, independent of cattle, treated in the infirmary in connection with this College during the month of April, 1886, was 1,074, and 84 horses were examined for soundness. Special attention is given to diseased cattle, for which there are great advantages in Toronto, as 2,600 head of cattle are fed in one establishment alone in that city from October to June.

" It is very gratifying to find that, through the energy, perseverance, and untiring industry of the Principal, this College draws students in large numbers from all parts of the neighboring Republic. The exhibit at South Kensington is greatly admired, particularly by the ladies, who gather in crowds to look at the photographs of the students, representing as they do different countries and different climes, gathered together in a Canadian College to obtain a knowledge of one of the most noble professions—that of alleviating the pain and sufferings of the brute creation. We may remark that Her Majesty the Queen took a great interest in this exhibit when visiting the Educational Court, soon after the opening of the Exhibition."

The *Canada Gazette* refers to this College as being the largest of its kind in the world.

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## PART VI.

## SCHOOL OF PRACTICAL SCIENCE, SCIENTIFIC SOCIETIES, AND COMMERCIAL COLLEGES.

The School of Practical Science, Toronto, exhibited specimens of Drawings from the Department of Engineering, including Orthographic Projection, Perspective Projection, Surveys, Graphics, Machine Drawings, Construction Copies, Construction Designs, Stone Cuttings, Surveys, etc., etc.

The Institut Canadien Français exhibited Crayon Drawings, Indian Ink and Pencil Sketches, Mechanical Drawings, Architectural Drawings, Perspective, Map Drawings, Penmanship, etc.

The Business Colleges were represented from Brockville, Hamilton, and Owen Sound.

The *Colonial Exhibition Supplement* remarks :—

" There are exhibits from the Brockville Business College, Brockville ; Canada Business College, Hamilton ; and Northern Business College, Owen Sound. These Colleges send a remarkably fine collection of Penmanship, including Commercial Forms, Business Letters, Cards, Off-hand Flourishing, Pen-and-ink Sketches, and various kinds of ornamental penmanship, which show a great amount of artistic training, worthy of high commendation.

" In addition, Mr. W. C. Austin, Principal of the Brockville Business College, exhibits sets of books (in the theory and actual business department) just finished by one of the students, representing the work actually done by the students ; also balance-sheets, samples of money and merchandise used by students in the actual business department of the College ; text-books, etc., showing the thoroughly practical training young men can obtain in this College before their entrance into commercial life. We have already congratulated Ontario on the excellence of her public school system, which is generally acknowledged to be equal, if not superior, to any in the world ; we can also sincerely congratulate the Province on the excellence of her business colleges, where young men receive an education which is specially adapted to assist them in overcoming the difficulties usually found at the beginning of a commercial career. These exhibits re displayed on the principal entrance archway, and are a source of great attraction."

## PART VII.

## UNIVERSITIES, COLLEGES, SCHOOLS OF MEDICINE, Etc.

The Universities were represented by photographs only, with the exception of Victoria University, Cobourg, which sent publications of societies in connection therewith. Upper Canada College sent specimens of Writing and Drawing.

The Ladies' Colleges had a large exhibit. Alma College, St. Thomas, sent a valuable collection of Freehand Drawings, Perspective, Geometry, Shading from Antique, Outlines from the Round, etc. This College is in affiliation with the Ontario School of Art for examination purposes. Ontario Ladies' College, Whitby, also in affiliation with the Ontario School of Art, had an excellent exhibit of Freehand Drawings, Original Designs, Shading, Water Colors, etc. The Ladies' Colleges, Brantford, Hamilton, and Woodstock, had large collections of Oil and Water Color Paintings.

Extract from *Colonial Exhibition Supplement* :—

"Proceeding now to the galleries, Art is prominent on the walls of the right gallery. Here the contributions come from the Ladies' Colleges, at Woodstock, Hamilton, Whitby, Brantford, and St. Thomas, and are as varied as they are excellent in character."

The Loretto Abbey, Toronto, and Loretto Convent, Hamilton, sent Oil and Water Color Paintings, Crayon Drawings, Embroidery, Honiton Lace, Modelling in Clay, etc.

Each of the Colleges was allotted separate compartments, which were prominently labelled, showing name of Institution, name of Exhibit, Residence, Description of Work, etc.

The following remarks are from the *Globe* :—

"The Roman Catholic Colleges.—In our last issue we referred to exhibits in the Educational Court, from institutions not under control of the Education Department. Amongst these are exhibits from Roman Catholic Colleges, which are remarkable for their excellence, and at the same time are evidence of the kindly feeling which exists in Ontario between Catholics and Protestants. The Education Department of Ontario, representing as it does the Government, sets an example worthy to be copied by older countries in thus acknowledging all creeds and giving prominence to exhibits where prominence is due.

"The exhibits from the Roman Catholic Colleges are displayed so well and so conspicuously as to reflect great credit on Dr. May in the arrangement of the Court. These Colleges have their special alcoves in the centre of the principal gallery, and articles liable to injury from exposure are placed in handsome glass cases made specially for these exhibits.

"Want of space forbids our referring to all the articles exhibited. The following brief notes may, however, be of interest : The Loretto Abbey, Toronto, sends some beautiful work done by the pupils, including Oil Paintings, Oil on Velvet, Water Colors, Crayon Drawings, Embroidery, Wax Flowers, etc. It may not be generally known that this Abbey is a branch of an Institute which has been for more than two centuries devoted to the instruction of youth. The mother house was established in Rome, and so far back as 1683, houses in connection therewith were established in this country. In 1882, the community established a house at Rathfarnham, near Dublin. To this first Irish foundation the Mother Superior gave the name of 'Loretto' from he House of Nazareth, now at Loretto, in Italy. All filiations from the mother house have carried the name with them, and it has become very familiar in Canada, representing as it does cademies and convents in several of the principal cities and towns. The Toronto Abbey proides a liberal course of instruction in all branches of knowledge required in the education of young ladies, including ancient and modern languages, instrumental and vocal music, fine arts in various branches, embroidery, needlework, etc., also domestic economy; the same course of instruction is pursued in the main in all the Convents and Academies of Loretto in Canada.

"The collection of pupils' work from Loretto Convent, Hamilton, is also very beautiful. It embraces Oil Painting on China, Water Colors, Modelling in Clay, Satin Stitch and Applique Work, Honiton Lace, etc, and shows the results of the excellent teaching and the liberal education imparted by the ladies of Loretto.

"The Educational Court also contains large framed photographs of other Catholic Educational Institutions besides those of Loretto, including the Sacred Heart Academy, London; Convent de Notre Dame, Peterborough, and St Joseph's Convent, Toronto. They are all magnificent buildings, in commanding and healthy positions, surrounded with spacious grounds; and those interested in education should not fail to examine these proofs of the zeal and enterprise of the Roman Catholic ladies of Ontario."

Photographs of Toronto School of Medicine, Royal College of Pharmacy and Surgery, Kingston, and the Ontario Pharmaceutical College, were also exhibited. The *Globe* says:—

"It will, perhaps, interest some of our readers who may be visiting the Colonial and Indian Exhibition, to mention that in the Educational Court of Ontario there is a large photograph of the Ontario College of Pharmacy, and we think our Canadian friends are to be sincerely congratulated on their success in building so handsome and commodious a structure.

## CONCLUSION.

The question may arise, What benefit has our Province derived from its Educational Exhibit in England? To this I would reply, That amongst the five and a-half millions of visitors it has, no doubt, imparted information to hundreds of thousands of people who previously knew little or nothing of Canada. It has opened up new avenues of thought as to the value of the productions of our fertile fields, and the great wealth from our inexhaustible fisheries. It has enabled them to judge of the value of education upon the industrial development, national wealth, prosperity and happiness of our people.

It has given them a knowledge of the immense territory and natural resources of this Province, which, with a population of only about 2,000,000, has nevertheless increased nearly 500 per cent. during the past fifty years, about 100 per cent. more than the proportionate increase during the same period in the United States.

We have shown, too, that our knowledge and intelligence has been increased by our free system of education, and this is of consequence, as it is generally acknowledged that the supremacy of a nation, either in peace or war, depends upon the intelligence of its people.

In these days of science, when time and space may be said to be almost annihilated, and intercommunication between distant countries so easily established, the competition is such that it becomes necessary for manufactured goods to be of artistic design, well constructed, and at the same time produced so cheaply as possible by the aid of labor-saving appliances. We have proved that our Government assists in developing the latent talent of the industrial classes, by teaching the branches of knowledge which enables them to construct and manufacture these labour-saving appliances, so valuable in the hands of skilled artisans. If we take drawing as an example, the teaching of industrial drawing is now made compulsory in the schools, and is fostered and encouraged in the Mechanics' Institutes of this Province. Educationists and manufacturers both say that industrial drawing is the foundation of industrial education; they substantiate this by showing that every mechanic should possess some knowledge of drawing, and prove from calculations that the productive efficiency of machine shops would be increased one-third if every mechanic could read working drawings so as to work by them.

In this manner our Educational Exhibit has enabled the people of different nations to judge for themselves of that system of education, which we claim has promoted and inculcated self-reliance, preserving industry and rapid advancement in all which tends to the civilization and prosperity of a country.

I may further state that the Educational Exhibit from Ontario was of great interest in England last year, because of the recent change in the school law, requiring school fees to be paid in advance. In London the fees are fixed with reference to the social condition of the neighborhoods in which the schools are placed. The average fee of the London School Board is a small fraction over four cents per week.

The new law requires these fees to be paid in advance, and if not paid the parents are prosecuted in a criminal court, for the technical legal offence of not having sent their children to school. This law came into force on the 4th October, 1886, and the day preceding (Sunday) a mass meeting was held in Trafalgar Square, denouncing this new rule of the School Board and advocating free education. The excitement was considerable, and the press, generally, discussed the question as to *Fee* or *Free* Schools.

As may be supposed, numerous enquiries were made as to the working of the Ontario Free Public Schools. I gave all the information in my power, and liberally distributed the pamphlets relating to the School System of Ontario. I also sent copies of the pamphlet to the members of the London School Board, at the same time offering to meet them, individually or collectively, to give any further information if required. Finally, at the request of several prominent educationists, I prepared the following letter, which, by the courtesy of the Editor, was published in the *Schoolmaster*, the leading educational paper in the United Kingdom :—

## FREE EDUCATION IN THE PROVINCE OF ONTARIO, CANADA.

In consequence of the recent discussion in the public press on Free Schools, I have had numerous inquiries at the Colonial Exhibition as to the management of the Free Schools of Ontario ; and as the question of *free* or *fee* still continues to be agitated, it has been suggested to me that before leaving England I make known to the public, so far as possible, the educational system in relation to Free Schools in Ontario ; and as I know of no better channel than the *Schoolmaster*, I have to ask you kindly to give space in your valuable columns for that purpose.

I shall not make comparisons of the methods employed in other countries, neither shall I take up space by giving a detailed historical sketch of the rise and progress of our public school system, which commenced so far back as 1816, but refer only to the present position of the Free Public Schools of Ontario, and to make this more comprehensive I shall divide the subject into different headings.

### Administration.

The administration of the Educational System of Ontario is provided for by statute as follows :—There shall be a Department of Education, which shall consist of the Executive Council, or a committee thereof, appointed by the Lieutenant-Governor ; and one of the said Executive Council, to be nominated by the Lieutenant-Governor, shall hold the office of "Minister of Education." It will thus be seen that the Minister of Education is under control of the representatives of the people.

The duties of the Minister of Education are very onerous, amongst which he has power to make regulations for the classification, organization, discipline, and government of Normal, Model, High, Public, and Separate Schools ; for the equipment and ventilation of school-houses ; for the arrangement and requisites of school-premises ; for the authorization of text-books for the use of pupils ; to appoint Inspectors of High Schools, Separate Schools, and County Model Schools, Masters of Provincial Normal and Model Schools, and Directors of Teachers' Institutes ; to provide for the training of teachers ; to make regulations for granting the pensions provided by law for superannuated Inspectors and Teachers, etc.

I noticed in the press of last week that Mr. Matthew Arnold, in his parting words to the teachers assembled together to do him honor on his retirement from public life, said : "Insist on having a Minister of Education. What we want in a Minister of Education is this : a centre where we can fix the responsibility. Insist, therefore—as you, the chief sufferers, by mistakes and neglects in the management of Education, have a right to insist—insist on having a Minister of Education."

I need only remark that in Ontario we have a responsible Minister, who is responsible to the teachers and responsible to the people, and the advantage of this system is that we can get a thoroughly practical man. The present Minister of Education, the Hon. George W. Ross, LL.B., has been a Public School Teacher and Inspector, and Model School Inspector. He is, therefore, conversant with all the details of school management; and his administration gives satisfaction to Teachers, Inspectors, and School Trustees, as well as to parents and children.

## FREE SCHOOLS.

All *Public Schools in Ontario are free schools*, and every person between the age of five and twenty-one years has the right to attend some school.

In 1850 the Legislature invested each school division, or section, with power to decide annually for itself whether the schools should be entirely free. In 1866 the ratepayers themselves had made more than four-fifths of the schools free. The question of free schools was subsequently thoroughly discussed, and it was decided that the property of all should be made liable for the education of all. There was an almost unanimous opinion that all persons should contribute to the education of the youth of the land according to the amount of property they possessed, it being contended that property is better protected and increased in value where the education, intelligence, industry, and enterprise of all the people are encouraged. The Public Schools were thus all made absolutely free by the voice of the people.

## LOCAL MANAGEMENT, AND APPOINTMENT OF SCHOOL TRUSTEES.

A system of Municipal or Local Government is uniform throughout the Province, which rests upon the free action of the ratepayers of each municipality. The organization comprises minor municipal corporations, consisting of townships; county municipalities governed by a council of the heads of the minor municipalities; villages with a population of over 750; towns with a population of over 2,000; and cities with a population of over 10,000. The Rev. Dr. Ryerson, the founder of the Ontario System of Free Schools, thus describes the facilities afforded to educational progress by the municipal system:—"It is in Upper Canada (now Ontario) alone that we have a complete and uniform system of municipal organization, from the smallest incorporated village to the largest city, and from the feeblest school section and remotest township to the largest county or union of counties—the one rising above the other, but not superseding it—the one emerging into the other for purposes of wider expansion and more extensive combination. By their constitution, the municipal and school corporations are reflections of the sentiments and feelings of the people within their respective circles of jurisdiction, and their powers are adequate to meet all the economic exigencies of such municipality, whether of schools or roads, of the diffusion of knowledge, or the development of wealth."

On the incorporation of any city, town, or village, an election of school trustees is held; the persons qualified to be elected trustees must be actual resident ratepayers—that is, assessed householders, whether owners or tenants, or persons assessed for income; and every ratepayer of the age of twenty-one years, who resides within the municipality, is entitled to vote at any election for school trustee, or on any other school question. Therefore the trustees are appointed and controlled by the people themselves. As representatives of the people, they are practically the owners of the schools.

## DUTIES OF SCHOOL TRUSTEES.

The trustees prepare the estimates of the sums required for all school purposes, including purchase of Site, Building, Furniture, Teachers' Salary, etc.; these estimates are laid before the Municipal Council, which has power to levy and collect upon all taxable property within the municipality sufficient sums to meet the requirements of the school trustees.

The trustees are under obligations to provide adequate school accommodation, as defined by the Education Department, for two-thirds of the actual resident children of school age; to appoint a sufficient number of teachers, who must possess the qualifications required by the Department; to permit all children of school age to attend school *free* of charge. To see that no unauthorized books are used in the school, and that the pupils are supplied with a uniform series of authorized text-books sanctioned by the Education Department. To provide maps, apparatus, libraries, etc. To take possession and have the custody of all public school property. To visit the schools under their charge from time to time, and prepare annual reports on forms prescribed by the Education Department. They have the power of dismissing refractory pupils, and they can exempt indigent persons from the payment of school rates. They are bound to keep the schools open the whole year, except during vacations.

## LEGISLATIVE ASSISTANCE.

Large sums are annually granted by the Legislature to be apportioned by the Minister of Education amongst the municipalities, on condition that they raise by rate a sum equal, at least, to that apportioned to them, both amounts being solely devoted to the payment of teachers' salaries.

The Legislative Grant averages only about 7 per cent. of the total amount raised for public schools. The amount of Legislative Grant in 1884 was two hundred and sixty-seven thousand dollars, whilst the total receipts for all public school purposes was no less than three million, seven hundred and thirty thousand dollars.

This, of itself, is a sufficient proof of the excellence and popularity of the Free School system, inasmuch as the people voluntarily tax themselves for it maintenance and support.

## PUBLIC SCHOOL INSPECTORS.

The Inspectors are appointed by the municipal councils, and must have had practical experience in teaching. They must either be holders of first-class provincial certificates, or graduates in arts, with first-class honors, of a provincial university, and furnish evidence of having taught successfully for five years, of which three at least must have been spent in a public school.

The duties of an Inspector are to examine into the methods of instruction, ascertain the progress made by the pupils, see that the schools are properly equipped, and that no unauthorized books are used in the school. They have the power to withhold the school grant; they apportion the school grant according to the average school attendance of pupils; they can grant temporary certificates for teaching, or suspend teachers' certificates for cause. They have to report to the Education Department, and see that its laws and regulations are observed.

The powers of Inspectors are very great, but they are trained, responsible men, in whom the ratepayers have confidence; and that it is not misplaced, can be judged from the great progress made in the education of the children, as evidenced by the exhibits of pupils' work at the Colonial Exhibition, which received commendatory notices from leading educationists and the press in general. Nearly every school under their inspection is provided with wall maps, the total number in use being over 40,000; a large number of the schools are also supplied with globes and school apparatus. Great improvement has been made in the school buildings, which are now well ventilated, and provision made for the comfort of the children by properly constructed seats and desks, etc. School architecture has made wonderful progress in the Province, because the Inspectors advise with the trustees, in erecting good permanent buildings, adapted for school purposes. The large photographs of our Schools at the Exhibition were admired by thousands of persons, who were surprised to find that, with a population of less than two millions, we have 5,375 Public Free Schools, many of which, in architectural beauty of design, are equal to those found in older and wealthier countries. As stated at the commencement, it is not my intention to discuss school methods, but I do most earnestly direct attention to the importance of having school Inspectors selected from trained teachers, and invested with all the necessary powers to promote the efficiency and general welfare of the schools in their charge.

## Public School Teachers.

The conditions on which public school teachers' certificates may be granted, are prescribed by the Department. The certificates issued are—first-class, grades A, B, and C; second-class, and third-class. First and second-class certificates are valid throughout the Province, and are held during good behavior, while the third-class are limited to a period of three years. The holder, however, may, on passing the Departmental Examination, obtain a renewal of the same for three years, subject to attendance at a County Model School. There can be no renewal without re-examination. In an emergency the Minister of Education has power to extend the duration of a certificate. Third-class certificates are granted by County Boards of Examiners, the School Inspector being chairman of the examining board in his district. Second-class certificates are granted only on condition that the candidates have passed the non-professional examination in literature and science, held at the High Schools; must have taught successfully for at least one year in a Public School in the Province, and must have attended for one session a Provincial Normal School.

First-class certificates are granted only upon the following conditions:—That the candidate (1) must be the holder of a first-class non-professional certificate; (2) must have passed the professional examination for a second-class certificate; and (3) must have attended a training institute for one session, and passed the prescribed examination thereat.

In 1884 Ontario had 7,085 public school teachers; 235 held first-class certificates; 2,237 held second-class certificates; and 3,420 held third-class certificates; the balance having temporary certificates. The number of male teachers was 2,789, and female teachers 4,296.

The Minister of Education, in his annual report of 1884, says, in reference to the standard of the teachers employed: "It will be noticed that there is an increase of twenty-four in the number holding provincial first-class certificates. This increase, in view of the demand for teachers possessing the highest attainments, is very gratifying. Owing to the superior culture required for teachers of this rank, the number eligible for a certificate is necessarily limited. There is, also, a very large increase in the number holding second-class certificates, namely, from 1,201 in 1876 to 2,237 in 1884, while at the same time the number of third-class teachers is being gradually reduced. These are two very satisfactory features of the progress of education. The steady increase in the number of teachers of a higher grade shows:—(1) That the facilities afforded by our High Schools for a higher education are made use of. (2) That those entering the profession are disposed to seek the higher literary culture which a second-class certificate represents, and (3) That those possessing that higher culture are sought for by Boards of Trustees. It must not be forgotten that, other things being equal, the best educated man or woman invariably makes the best teacher. There is still, however, a tendency on the part of some teachers to remain satisfied with any qualification which entitles them to conduct a Public School."

The Minister, in referring to the marked increase in the salaries of teachers during the past few years, says: "There is a considerable discrepancy still between the salaries paid to females as compared with males. Why should this be, when the services rendered are, in most cases, of equal value?"

The Public School Teachers of Ontario are, as a class, an influential body. They are popular, well-educated men and women, careful and painstaking, endowed with zeal and energy in promoting the great cause of education, having a fellow-feeling and sympathy with each other; with a proper estimate of the dignity of their profession, and a desirability that it shall never be disgraced by word or deeds of theirs. It is not surprising, in such a large and influential body, many of its members rise to positions of prominent honor in Ontario. The Minister of Education at one of the High Schools, in a speech last month, said:—"The Ontario Assembly contained, perhaps, more teachers in proportion to its members than any other legislative body in the world, and men on both sides of the House were willing and able to aid and improve the educational system."

In my own experience I have known Public School Teachers become leading statesmen, eminent divines, celebrated lawyers, and distinguished physicians. There is no reasonable limit to the position to which they may aspire, and within their reach for the true advancement and government of their country; for although they may not, like natives of the neighboring republic, aspire to become President, we have a proof that one of their co-workers holds one of the most prominent and important positions in the country, as Minister of Education.

The Legislature is most liberal in promoting the welfare of teachers; it provides free education for them at Normal Schools, Model Schools, and Training Institutes, and also assists by liberal grants towards supporting a Teachers' Institute in each county inspectoral division, having for its object the reading of papers and the discussing of matters that have a practical bearing on the daily work of the school-room. The Director of Teachers' Institutes visits the Institutes, and takes part in the proceedings by discussing at least three subjects on the programme, and by delivering a public lecture. Every teacher, unless prevented by illness, must attend continuously the meetings, which last for two days.

## DEPARTMENTAL REGULATIONS.—ACCOMMODATION FOR PUPILS, SCHOOL FURNITURE, ETC.

The trustees are required by law to provide sufficient accommodation for at least two-thirds of the population between five and twenty-one years.

The school site must be in a healthy locality, with proper drainage. The water-closets for the sexes must be several feet apart, and proper care taken to secure cleanliness, and to prevent unpleasant and unhealthy odors.

The school-house must have an additional room for every fifty persons. In each room there should be at least 250 cubic feet of air-space for each pupil. Arrangements must be made for ventilation so as to secure a complete change of atmosphere three times every hour. There must be separate entrances and suitable cloak-rooms for boys and girls.

The desks and seats are usually so graduated in size that the pupils' feet may rest firmly upon the floor, and the backs of seats slope backward from the perpendicular to add to the comfort of the pupils.

Under the regulations, every school should be supplied with at least, Blackboards, 9-in. Globe, Maps of Canada, Ontario, World, the different Continents, Tablet Reading Lessons, Numeral Frame, Dictionary, Gazetteer, etc.

These regulations are applicable, more especially to schools in rural districts, as the schools in cities, towns, and villages are usually well equipped with maps, apparatus, reference library, etc.

## DEPARTMENTAL REGULATIONS.—TEXT-BOOKS.

The programme of studies prescribed for use of Public Schools is as follows:—Reading and Literature, Spelling, Othography, and Orthoëpy Writing, Arithmetic, Drawing, Geography, Music, Grammar and Composition, History, and Object Lessons. Other subjects recommended to be to be taught are Hygiene, including Temperance, Drill and Calisthenics, Moral and Religious Instruction, Reviews and Recitations, and Agriculture in Rural Schools.

The Department of Education has the authorization of the text-books used by the pupils; and recently, under the direction of the Minister of Education, an admirable set of readers adapted to the country has been published, also a set of Drawing Books, Works on History, Hygiene, Scripture Readings, etc. Some of the other text-books used are by Canadian authors, and others reprints of English publications.

The advantages from a uniform set of text-books cannot be over-estimated. They are selected by a Central Committee of Examiners, all experienced, competent advisers. They are suitable to the youth of our country, and should a pupil remove from one part of the Province to another, the same set of books can be used; and, moreover, there is no temptation for interested persons to recommend publications from which they might reap a profit.

Drawing has only been made compulsory since July, 1885, but its importance as a branch of education is already fully recognized. It is the written language of the eye, with an alphabet of only two letters—the straight line and the curve. It is especially the language of mechanics and workmen, and most valuable in the manufacturing progress of a country.

## DEPARTMENTAL REGULATIONS—RELIGIOUS INSTRUCTION.

Every school is opened with the Lord's Prayer, and closed with reading portions of Scripture taken from selections authorized for that purpose by the Department, and must be read without comment or explanation, but no pupil is required to take part in the religious exercises against the wish of his parent or guardian.

The clergy of any denomination have the right to give religious instruction to the pupils of their own church in each school-house at least once a week.

It will thus be seen that everything in reference to religious exercises is left to the parents and guardians of the children, the Government exercising no authority, but fully recognizing and protecting the rights of conscience and parental authority in all religious matters.

## COMPULSORY ATTENDANCE.

The parent or guardian of every child, not less than seven years nor more than thirteen years of age, is required by law to cause such child to attend a public school or some other school in which elementary instruction is given, for the period of 100 days in each school year, unless there be some reasonable excuse for his non-attendance.

The law is very explicit on the duty of guardians. It says :—" Any person who receives into his house a child of any other person, under the age of thirteen years, and who is resident with him, or in his care or employment, shall be deemed thereby to be subject to the same duty with respect to the elementary education of such child during such residence, and shall be liable to be proceeded against as in the case of a parent, if he should fail to perform his duty of causing such child to be educated to the extent required of a parent."

Children employed in factories are only compelled to attend one-half of the whole time required by the Act, provided they have certificates from the School Inspectors that they have passed an examination prescribed by the Education Department.

As a rule, no compulsion for children to attend school is required, the parents and children themselves seem to appreciate the true value of education. The compulsory clauses in the School Act, however, shows the taxpayer, who is rated without his consent for school purposes for the public good, that children are compelled to attend school.

## SCHOOL PURPOSES.

The term " Separate School " applies to Protestant and colored persons as well as to Roman Catholics ; but this exception to the general public school system is confined chiefly to Roman Catholics, who desire to establish Separate Schools in localities where their supporters are sufficiently numerous to support one. The principle of the Schools is, that any Roman Catholic ratepayer may elect to support a Separate School, and upon giving the prescribed notice he is exempted from the Public School rates. These Schools are governed by trustees, who are elected by the supporters of such Schools, and are a corporation with powers similar to those of other school trustees. The teachers are required to possess proper certificates of qualification, and the Schools share in the Legislative Grant in proportion to the attendance, and they are also subject to inspection by the Education Department, two Inspectors having been appointed for that purpose. In case of any disagreement between the Separate or Public School corporations and the municipal bodies, such dispute is subject to the arbitrament of the Minister of Education, with the right to appeal to the Lieutenant-Governor in Council.

There are 207 Roman Catholic Separate Schools in Ontario.

## CONCLUDING REMARKS.

Every year's experience shows more fully that the Free Public School System in Ontario is founded on the true principle for the education and advancement of the people. The Government, knowing that education has the effect of sharpening the perceptive, and strengthening the reasoning faculties, considers that the education of all the youth of the country is a national duty, to which every person should contribute according to the property he possesses, and which is protected for him by the State.

Every facility is provided for the training of teachers. (*The Times*, September 21st, says:—"Evidently very great care is bestowed on the training of teachers for the various classes of schools in Ontario. The examinations which they have to undergo are formidable and comprehensive, and for the higher grades quite as formidable as that of the London B. A., and far more varied.") Every precaution is taken to secure in them good moral character, as well as competent literary qualifications; and the result is that many of the children of the poorer classes, by their intelligence, industry, and perseverance, have become leading men in the professions, prominent merchants, and holders of other positions of trust in the country.

It is true that it causes a kind of levelling process, as the children of the poor man sit side by side and compete with the children of the rich man. It might be considered in some countries as partially breaking up the distinctions of class, but we find that it teaches self-respect, and all classes learn to know and respect each other.

The result of our education is that we have individual security, public peace, and that freedom of action consistent with rational liberty in a country which is rapidly increasing in wealth and prosperity.

Although far removed from the splendor of royalty and the influence of a court, we train our children to be law abiding. We are loyal subjects of our Queen, and we love and venerate our mother country; not from antiquated prejudice, nor reluctantly tolerated from a sense of duty; but, on the contrary, it is cherished in our affections, and supported by the freewill of a people whose love of order has been strengthened as their knowledge has increased, who value that Government which so ably affords security to life and property, and whose laws ensure the actual enjoyment of all that deserves to be dignified with the name of freedom.

In conclusion, I may state that the Free Public School System of Ontario is generally acknowledged to be equal to any in the world. It has been imitated by other countries including some of the neighboring states and, at least, one colony in Australia. And in addition to this grand scheme for primary education, there are provisions for secondary and higher education, which are essentially free; and the poor man's son, provided he has talent and energy, receives free education from the Public School to the University.

With a population less than 2,000,000 we have upwards of 5,000 Public Schools nearly 200 Classical Schools, Colleges and Universities, and 150 Mechanics' Institutes and Art Schools, where adults can obtain a practical knowledge of subjects connected with their various trades and employments.

As stated in the public press, the goods exhibited in the Canadian section of the Exhibition show great advancement in the various manufactures; the workmanship is excellent, the designs are good, and there is ingenuity in construction, which can only be attributed to the practical education of the people.

I have endeavored to show this during the past few months; I have also sent copies of a pamphlet relating to the Educational System of Ontario, and a catalogue of our exhibits to H. M. School Inspectors, Clerks of School Boards, and the members of the London School Board; and I shall be pleased, during the short time at my disposal, to give any further information, if required.

S. PASSMORE MAY, M.D.,
*Commissioner of Education.*

Colonial Exhibition Building, London, November, 1886.

As very few persons in this country are familiar with the School Statistics of the United Kingdom, I take this opportunity of stating that in 1885 there were 29,912 Elementary Schools inspected, with accommodation for 6,734,423 pupils. The actual attendance was 4,329,324. Within the past twenty years the schools have increased over fifty per cent. and school attendance over seventy-five per cent., although the population has only increased about twenty-five per cent. during the same period.

The cost to the country for public education is very great, the sum submitted on the Civil Service estimates for 1887 is $23,876,625. It is money well expended, however, for crime has diminished in proportion as public education has increased. The number of committals for criminal offences in 1865 was 27,388, in 1885 the number was 18,500.

It is worthy of notice here, that whilst free education costs the Province of Ontario only about fifty-seven cents per pupil, the amount for education, not free, paid by the Government of the United Kingdom, is over $5 per pupil.

It will be seen from this report that every opportunity was taken to bring before the public the excellence of our educational system, and the agricultural and commercial advantages we possess in this province.

I may remark, too, that I referred to this on different occasions at public meetings, where I had the privilege of giving addresses, including the Guildhall, London College, Training Colleges, Public Libraries, etc. Some of these meetings were largely attended. For instance, at the Guildhall some thousands of persons were present at the presentation of the Queen's prizes, Science and Art Department. The Lord Mayor was in the chair, and Prince Henry of Battenburg gave his first address in public. On this occasion I referred to our Free Education, the influence of Industrial Drawing on manufactures, and the commercial progress, natural resources, climatology, etc., of this province. On the following day I received a letter from the Principal of the Technical Schools, thanking me for my attendance and address.

In conclusion, I cannot refrain from acknowledging my sincere thanks to Sir Charles Tupper, the Executive Commissioner for Canada, and Mr. C. C. Chipman, Accountant of the Canadian Commission, for their many acts of kindness, and the personal interest they always took in promoting and forwarding the interests of the exhibitors and representatives of the Educational Court of Ontario.

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The following Provinces, in addition to Ontario, sent educational appliances and pupils' work, which were exhibited in an annex adjoining one side of the Ontario Educational Court:

## PROVINCE OF QUEBEC.

The educational exhibit of this Province was represented during the Exhibition by the Hon. Gideon Ouimet, Superintendent of Public Instruction.

Their special catalogue shews that they had 164 collections of educational exhibits, which were classified as follows:—1. Department of Public Instruction, including Reports, School Acts, Text Books, etc. 2. Universities—Photographs and Books. 3. Classical Colleges—Photographic Views, Books, etc., from six Colleges. 4. Normal Schools—Specimens of pupils' work, Text Books, etc. 5. Academies, Model Schools and Elementary Schools—Photographs and pupils' work, including Writing Books, Daily Exercise Books, Needlework, Drawing Books, Map Drawing, etc., from eighty-five schools. 6. City of Montreal, Roman Catholic and Protestant Board of School Commissioners—Photographs and pupils' work, consisting of Writing Books, Exercise Books, Book-keeping, Map Drawing, Head Drawing, Landscape Drawing, Painting on Satin, Needlework, Crotchet-work, etc., from sixty-four schools.

The pupils' work was chiefly exhibited in handsomely bound albums, the contents of which were greatly admired by those interested in education, containing as they did a great variety of well executed examples of the ordinary school work of the children.

The Commissioners publish the following as a preface to their catalogue:

"The Educational exhibit which we have prepared, does not adequately represent the state of education in the Province of Qnebec. The short time which our superior educational institutions and our elementary schools had to prepare for the great educational display has prevented many institutions from taking part. Several of our scholastic institutions, which could have prepared excellent exhibits, finding themselves unprepared and fearing that they might compromise their well-deserved reputation by a hurriedly prepared exhibit, have abstained from taking any part in the present display. Such as it is, our exhibit represents the regular work carried on in our elementary schools and in our institutions of superior education; and we venture to hope that, under the circumstances, these illustrations of the results of our educational system may meet with the approval of the specialists appointed to examine them."

The Council of Arts and Manufactures of the Province of Quebec, also exhibited a collection of drawings done in the class-room by pupils from fourteen to twenty-one years of age.

### NEW BRUNSWICK.

This exhibit was represented by Mr. Ira Cornwall, jr. It consisted of:

*School Work:*—

Specimens of Print Script Exercises, Writing, Maps, Industrial Drawing, Sewing and Knitting. (Arranged in bound folios.)

*School Furniture:*—

Desks and Seats, and Teacher's Desk.

*Text-books:*—

One copy of each Text-book prescribed for use in the Schools of the Province.

*School Apparatus:*—

One Set Drawing Models; one Set Blocks to illustrate Form; one Set Natural History Series to illustrate Plant and Animal Life; Weights and Measures; Specimens of New Brunswick Woods and Minerals, as used for illustrative purposes; Crayons and B.B. Rubbers; Ball Frame; Map of New Brunswick.

*School-houses:*—

Photographs of School-houses and of Class-rooms; Plans of School-houses.

*School System:*—

Outline of School System; Outline of Course of Instruction; School Manuals.

*School Reports:*—

Annual Reports; Blank forms for Inspectors' Reports; Blank Forms for Trustees' Returns and Teachers' Reports.

*School Registers, etc.:*—

School Register and Cover; School Licenses; Provincial School Drafts; County School Fund Drafts.

The Academy of Arts and Free Night School, St. John, New Brunswick, sent a collection of Freehand Drawings from Nature in Charcoal and Crayon.

### NOVA SCOTIA.

The Hon. Wm. Annand represented this exhibit, which consisted of a collection of School Desks and a Teacher's Desk, manufactured in Nova Scotia.

School Cabinet of Nova Scotia Minerals (arranged by Pupils of Pictou Academy).

Etomological Collection, in twenty-four cases, (Pictou Academy).

Case containing Prescribed Text-books.

Six Drawings of Prescribed Plans for School-houses.

Eight Photographic Views of Educational Buildings.

Collection of Maps, Copy-books, Essays, Text-books, etc., etc., illustrating Work and System of the Institution for the Deaf and Dumb, Halifax, Nova Scotia.

Collection illustrating the System of the Halifax School for the Blind, with specimens of Pupils' Work.

Large Portfolio containing specimens of Needlework by Pupils of the Public Schools of Nova Scotia.

Collection of Maps drawn by Pupils.

Collection of Drawings by Pupils.

Four Portfolios containing specimens of Pupils' Work in Drawing, Map-making, Grammatical Analysis, Parsing, Penmanship, etc.

Specimens of Educational Forms.

Collection of Reports, School Law Manuals, Courses of Study, University Calendars.

Small Collections of Sundries, Woodwork by Pupils, etc.

Drawings by Pupils in the Provincial Normal School, Truro.

## PRINCE EDWARD ISLAND.

*Collective Exhibit :—*

St. Dunstan's College.—One book containing one small and four large Architectural Elevations ; one Tracing Book do.

Prince of Wales College.—One book containing one Illuminated Title, Pen work, and four Maps.

Public Schools.—One Book, twelve Maps.

St. Dunstan's College Examination Papers.

One Album of Penmanship, do.

Examination Papers, Prince of Wales College.—Charlottetown Public Schools, Marshfield—St. Peter's Boys' School.

Three Copy Books, Elementary.

Collection of Text-books for Schools and Colleges.

Departmental Reports, etc.

## MANITOBA.

Collective Exhibit of Educational Appliances, Books, Exercises, etc., from the Catholic Schools of the Province.

Educational Exhibit, consisting of Primary Reading Charts, Text-books, School Furniture, and samples of Pupils' Work on Writing, Composition, Book-keeping and Map Drawing, from the Protestant Schools of the Province.

# APPENDIX.

## OTHER COUNTRIES WHICH EXHIBITED.

In order to show the extent of the British possessions and how universally Her Majesty's subjects united to make known the greatness of the British Empire by exhibiting the products, manufactures and educational appliances of their respective countries, I shall give a brief historical sketch of each country from facts collected from authorities at the exhibition, and from their spocial reports, with short notices of their educational systems and exhibits.

The accompanying map is colored (*red*) to show the geographical position of each of these countries.

## AUSTRALASIAN COLONIES.

### Australia.

Australia was originally a simple Crown Colony; the first settlement was made by the British Government at Sydney, in 1788. At present Australia is divided into five Colonies; all on the mainland, viz.: New South Wales, Victoria, South Australia, Queensland and Western Australia.

Each of these Colonies is presided over by a Governor appointed by the British Crown, but with the exception of Western Australia otherwise self-governing.

### New South Wales.

New South Wales, the oldest Colony of Australia, was discovered by Capt. Cook in 1770. The first governor was appointed by the British Government in 1787, and the Colony of New South Wales was formally declared to be founded in 1788.

In 1851 the south-western districts of New South Wales were formed into the Colony of Victoria, and in 1859 its northern districts into the Colony of Queensland.

It is bounded on the *north* by Queensland, on the *west* by South Australia, on the *south* by Victoria, and on the *east* by the Pacific.

It includes an area of 309,175 square miles, and in 1886 the estimated population was 981,000. Its chief product is wool, which is exported to England. It was in this Colony that gold was first found in Australia, in 1851. The aggregate value of the gold mines up to 1884 was $176,807,750. Coal is also found in abundance; the aggregate value of coal mining up to 1884, was $78,546,400. Other minerals are also abundant in New South Wales; the aggregate mineral wealth of all kinds up to 1884, being $320,342,925

New South Wales is rich in educational institutions. Sydney, the principal city, has a population of 250,000, and is the first town in Australia that was settled. There is a University, Denominational College, Grammar School, School of Arts, Technical, Industrial and Sanitary College and Museum, Natural Art Gallery, Free Public Library, Public Schools, etc.

The Public Instruction Act which is administered by a responsible Minister, came into operation in 1880. The schools are entirely undenominational, and the attendance of children between the ages of six and fourteen years of age is compulsory. The school fee is 3d (6 cents) per week per child, and the fees collected are paid into the treasury as revenue. Provision is made for educating children whose parents are unable to pay fees. Teachers are recognized as civil servants, and paid by salary out of the public funds. School Buildings are erected wholly at the expense of the Government.

Since 1861, Parliament has voted nearly $30,500,000 for Primary Schools. The annual expense for school sites, buildings, furniture, etc., averages over $3,500,000.

In 1885 there were 2,046 State School in operation, viz.: 8 High Schools, 26 Superior Public Schools, 1,532 Public Schools, 294 Provincial Schools, 150 Half-time Schools, 50 House-to-house Schools, under itinerant teachers, and 12 evening Public Schools. There are also two Training Schools for teachers. The total school population is nearly 280,000, nearly a third of the entire population of the Colony.

### *Educational Exhibit.*

The greater part of their educational exhibit was from the Technical College, Sydney; it consisted of specimens representing the following classes :—1. Modelling, Plaster Casts; 2. Carpentry and Joining, practical; 3. Masonry, arches, etc.; 4. Naval Architecture, models, etc.; 5. Plumber's; 6. Art Class, drawings; 7. Carriage Building, drawings; 8. Carpentry and Joining, theoretical; 9. House Painting, graining and marbling; 10. Art Decorations, ornaments; 11 Architecture, drawings.

A Geological Class Map was also exhibited by this College.

Twelve Public Schools sent exhibits of pupils' work, consisting chiefly of sewing and fancy work, which was in great variety and well executed; the few specimens of writing and map drawing sent were not sufficient to judge accurately of the general work done in these branches.

The Surveyor General, the Government Astronomer and the Minister for Mines, sent several very finely executed maps and charts for scientific purposes.

There were also private exhibits of drawing models and scientific apparatus.

## VICTORIA.

This colony lies at the south-eastern extremity of the Australian continent; its area is 88,198 square miles. Although the least of the Australian colonies it is the most populous, having one million inhabitants. Victoria was first settled in 1833, by an Englishman; it then formed part of New South Wales, and was known as the Port Philip District. Melbourne its chief city, which now has a population of 325,000, was founded in 1837.

In 1851, Port Philip became a separate colony, and was named "Victoria" in honor of the young Queen. In this same year (1851) the discovery of gold gave the colony an impetus, which is said to have "uplifted the colony in a night to the position of a nation and a power in the world, and advanced her destinies hundreds of years at one bound." Victoria was crowded with searchers for fortune from every quarter of the globe, in one year nearly 80,000 immigrants being added to the population of the colony.

The total value of gold raised in Victoria from 1851 to 1885 is estimated at over $1,500,000,000.

During this year (1851) the first Lieut-Governor was sworn in. Responsible government was not, however, introduced until 1855.

They have a system of State Education in Victoria, the basis of which is that secular instruction shall be provided, without payment, for children whose parents may be willing to accept of it, and that whether accepted or not, satisfactory evidence must be produced that all children between the ages of six and fifteen are educated up to a given standard. The result is reported as very satisfactory. In 1881, of every 10,000 children of school age (between the age of six and fifteen), 9,481 could read, and 8,535 of them could write.

Schools of Mines have been established at Ballarat and Sandhurst, to which are attached museums, containing geological and technological specimens, models of mining machinery and mining plant, sections of mines, etc. There are 880 students in these two schools.

Schools of Design have also been established at twenty-five other places in Victoria, for promoting technological and industrial education. There are over 2,800 pupils on the rolls of these schools. An exhibition of the pupils' work is held yearly in Melbourne and local exhibitions are held in other cities and towns.

They have also a University, which, in 1880, was thrown open to females, who are admitted to all its corporate privileges, except as regards the study of medicine.

In 1884, the number of students who matriculated was 173, of whom nine were females.

### *Educational Exhibit.*

This colony had a small educational exhibit, but there was no attempt to make it a prominent feature in their section of the Exhibition.

The Minister of Education sent a small collection of specimens of pupils' work, Models of Schools, and Photographs, with an Excellent Map showing the whole of the State Schools in the colony.

The Victorian Deaf and Dumb Institution sent specimen exercises on Written Language, Writing, Arithmetic, and Drawing, Photographic Views, Statistics, Reports, etc.

The Victorian Asylum and School for the Blind sent Baskets, Mats, Nets, Woolwork, etc., the work of the pupils, also Photographic Views of the Buildings and Pupils at Work.

Trinity and Ormond Colleges sent photographs.

The Oberville School of Art sent examples of Sculpture, Drawing, and Painting in Oils, and Imitation Tapestry.

Private exhibitors sent some Object Lessons and Philosophical Instruments, and the public departments exhibited Maps and Charts, including a raised Map of Victoria, showing existing and proposed lines of railways.

The pupils' work exhibited was excellent, and it is to be regretted that a larger collection was not sent.

## SOUTH AUSTRALIA.

This colony is, with the single exception of Western Australia, the largest of all the Australian colonies, stretching across the whole island continent from south to north. The total area is 903,690 square miles. The population, according to the latest official record (1884), was 312,781.

In 1831 Captain Sturt discovered the River Murray, which runs down into South Australia, and empties itself into the Southern Ocean, but it was not until December, 1836, that the first Governor of South Australia took possession of the land in the name of the Sovereign of Great Britain.

Although gold is found in small quantities only, the copper mines of this colony have produced great mineral wealth.

The education of the people received legislative attention very early in its history. The first Act relating to education was passed in 1847. This was suspended in 1851 by an Act, the expressed object of which was to impart good secular instruction, based upon the Christian religion, apart from all theological and controversial differences on discipline and doctrines, and a Central Board of Education was established.

In 1875 an Act was passed which abolished the Central Board of Education, established a Council of Education; attendance of children between the ages of seven and thirteen years was made compulsory, and fees were authorized to be charged.

In 1878 the Council was dissolved, and the administration of the Education Department transferred to a "Minister Controlling Education," assisted by an Inspector General of Schools, with a staff of Inspectors and Teachers.

In 1884 there were 452 Public and Provisional Schools; 42,758 children received instruction from 400 male and 600 female teachers. The total expenditure upon education (exclusive of buildings) was, in 1884, over $500,000.

About 390 schools have been erected since January 1st, 1876, at a cost of upwards of $2,000,000.

Scholarships, exhibitions, and bursaries, are open to the pupils at public schools, with the advantage of education at the Adelaide University, or any approved European University. As an illustration of this, in 1878, a scholar won an exhibition at one of the Model Schools: this entitled him to free education at Prince Alfred College (the seminary selected by him), and in 1884 he won the South Australian Scholarship, which is worth $1,000 per annum for four years.

In addition, the Education Department offers annually three University Scholarships (worth $250 per annum for three years), which entitle the holders to education at the Adelaide University free of cost. Six exhibitions, for scholars at the public schools, of the value of $100 to $200 each, are also available annually, and entitle the holders to free education at any of the colleges which they may select. Bursaries of the value of $60 are also offered by the department of girls.

### *Educational Exhibit.*

The Inspector General of Schools sent a small exhibit, consisting of Maps and Plans used in the Education Department, Two Maps of Australia. Set of Arithmetical Diagrams, and Copies of Course of Instruction, Time Tables, Calendar, and Education Gazette.

The Superintendent of Poonindie Native Institution exhibited specimens of writing done by native children, also a small cottage, picture frames, and brackets made of cones.

A private exhibitor sent an Educational Object Lesson, "The Gospel Ship," and some Maps and Diagrams were exhibited from different government departments.

## QUEENSLAND.

Queensland, comprising the north-eastern part of Australia, has an area of 668,224 square miles, and a population of about 300,000. It is quite a new colony, only sixty-two years ago (1825) a penal settlement was founded at the mouth of the river. In 1839 the last batch of convicts was landed there. Ten years later the first free immigrants arrived and settled down near Brisbane, the capital, which has now a population of 40,000.

In 1859 the colony of Queensland was proclaimed by Imperial command, and since that time its progress has been very great. Immediately after its separation from New South Wales a system of National Education was inaugurated, it being contended that as education progressed, crime would be lessened, and thus the colony would reap a direct advantage from the money devoted to educational purposes. A Board of Education was appointed, and a Normal School, for the training of teachers, was built in Brisbane, and Schools in towns and country districts were built on a requisition of the residents, accompanied by an amount equal to about one-fifth of the estimated cost of the building. On these conditions, wherever there were twenty children above five years of age, a school was established, and a teacher supplied and paid by the board.

At first small fees were charged, but fees were abandoned in 1864.

In 1876, the Government undertook the entire management and control of the Schools, the Attorney-General was appointed Minister of Education, and since that time the Schools have increased at a remarkable rate. There are 425 State Schools, with 46,262 children on the rolls, and 1,161 teachers employed. About one-seventh of the population of the colony is under school instruction.

Every classified teacher is a civil servant appointed, transferred or promoted only by the Governor in Council.

### *Educational Exhibit.*

Thirty-five State Schools sent exhibits of pupils' work, including Maps, Dictation, Drawing, Ornamental Penmanship, and Needlework, altogether about six hundred specimens, representing the ordinary work of the Schools.

The Departments of Mines and Public Works, Railways, Post and Telegraph, and Public Lands, sent some very fine specimens of Maps, Charts, and Diagrams, relating to their various departments.

Physical Charts and Maps were also sent by private exhibitors.

In addition, the Reading Room in the Exhibition was supplied with files of about sixty newspapers and periodicals.

## WESTERN AUSTRALIA.

This colony embraces nearly one-third of the Australian continent. Its area is over 1,000,000 square miles, with a population of about 35,000, principally located within 100 miles of the sea coast.

It is the only one of the Australian group which is still a "Crown" Colony, that is to say a British dependency, where the officials of the Government, as well as the Governor, are appointed by the British Government.

The chief products are Wool, Timber, Pearls and Pearl Shells, Lead, Copper, etc.

There are seventy-four Government Schools, with 102 teachers and 3,052 pupils, in the colony. The amount contributed by the Government for education in 1884 was about $50,000, and the amount paid by pupils about $7,000.

The Education Act in force contains compulsory clauses, and the Commissioners claim that the standard attendance, if not so high as in Victoria or New Zealand, is already on a level with that of New South Wales, and slightly in advance of Tasmania; and as the country is now making rapid progress in other directions, it is not likely the Government will permit her to fall back in the matter of public education.

There was no exhibit of educational appliances, but an excellent collection of District Maps, Photographs, and Oil and Water Color Paintings.

## NEW ZEALAND.

New Zealand lies in the Pacific Ocean to the south-eastward of and at least one thousand miles from Australia. It consists of three islands and several small islets, the total area is about 100,000 square miles, the estimated population in 1885 was 576,234, exclusive of about 40,000 Maories.

Tasman visited New Zealand in 1642 and found it peopled by the Maori race. The next European who visited the country was Capt. Cook, in 1769; the Maories, its aboriginal inhabitants, were at that time cannibals, devoid of religious belief, except confused notions of good and evil demons. Capt. Cook is said to have planted in the country the first germ of colonization. Notwithstanding this, for a number of years New Zealand was only known to the civilized world for the danger of its coasts and ferocity of its inhabitants.

In 1814, the representatives of the English Church Missionary Society became the first European residents. After several years, in which the country became morally contaminated from the influx of traders, run-away sailors and adventurers, the British government interfered, and subsequently, after negotiation with the native chiefs, assumed complete possession of the country.

The constitution was that of Crown Colonies, and the Governor, except in so far as he was controlled by the Imperial Government, was almost despotic.

In 1853, a new constitution, based on the popular principle, came into force.

In 1863, the entire responsibility and control of the country was transferred from the Imperial to the Colonial Government, and the usage of responsible Government is now in full force.

Public schools are free, the cost being defrayed by an annual parliamentary vote. The amount voted for free schools in 1886 was about $17,000. They have 987 public schools, with 97,238 enrolled pupils and 2,447 teachers.

There are also seventy-one native schools for the education of the Maori race, which in 1884 cost the country over $67,000.

Several European schools, also, receive subsidy from the Government for the support of Maori pupils. The total number of Maori children receiving education in 1884 was 2,929. Endowed Secondary Schools, Grammar and High Schools, and Endowed Theological Colleges have also been established in various parts of the Colony. These are for the most part affiliated to the University of New Zealand.

The University of New Zealand is purely an examining body. It is empowered by Royal Charter to confer degrees, but it has no teachers in its employment; the teaching part of the work is done by affiliated institutions.

### *Educational Exhibit.*

The Education Department, Wellington, exhibited a small collection of School Books, Reports and Pamphlets, and a private exhibitor sent some Drawing Books.

Maps were also exhibited by private individuals.

The Otago University sent a magnificent collection of Fish and Reptiles, stuffed and in alcohol, also Skeletons disarticulated and mounted for teaching purposes.

The Canterbury Museum had an excellent exhibit of skeletons of extinct New Zealand Birds, including the Dinornis Maximus, also Maps, Drawings, etc.

## FIJI.

The Colony of Fiji is a group of islands in the South Pacific numbering over 200, of which eighty are inhabited. The total area is about 8,000 square miles, with a population of about 110,000, of which about 2,000 are white.

The Fijian Archipelago was discovered by Tasman in 1643. About the year 1804 twenty-seven convicts escaped from New South Wales and settled among the islands. These desperadoes having firearms, were dreaded by the native savages, and might have obtained absolute government of the islands; but they lived only for self-indulgence and the gratification of vile passions, some of them being regarded as monsters even by the ferocious cannibals with whom they associated.

In 1858, King Thakombau offered to cede the sovereignty of the islands to Her Majesty on certain conditions, which were not accepted.

In 1871, Thakombau, with the assistance of some Europeans, formed a government for the whole group, and the first parliament met for the kingdom of Fiji. It was found that the system of government adopted was unsuited to the condition of the country, and the Assembly was dissolved in 1873.

In 1874, Thakombau re-assembled his chiefs, and made another offer of cession with conditions which were unacceptable to the Imperial Government. Sir Hercules Robinson, Governor of New South Wales, was deputed by the House of Lords to proceed to Fiji, and the result of his negotiations was that the king and chiefs made a formal and unconditional cession to Her Majesty of the sovereignty of the islands.

The first Governor of the new dependency was appointed in 1875. Confidence in the government has grown up and these erstwhile savages are now a law-abiding native community.

Both Common and High Schools have been provided for upon a similar basis to that adopted in the Australasian colonies. Common Schools have been established in the islands of Suva and Levuka under certified teachers, assisted by pupil teachers. The Inspector's latest report shows that the attendance is regular and the educational results fairly satisfactory.

For the natives, the Wesleyan Mission have established day schools, at which about 42,000 children receive instruction. They have also a native Industrial School, educating about 100 boys from the northern provinces. The school is under European superintendence, assisted by Fijian tutors. In addition to scholastic subjects, instruction is given in agriculture, carpentering, boat-building, etc.

### *Educational Exhibit.*

The native Industrial School exhibited a number of carpenters' tools, etc,, manufactured by the pupils.

The Rev. James Culvert sent a collection of Books in the Fijian language, Illustrated Sacred Cards, Polynesian Gazette, printed on native cloth, etc., and several private individuals exhibited Photographs, Paintings, etc.

## CAPE OF GOOD HOPE.

This is the most important British colony in South Africa. Its total area, formerly only about 120,000 square miles of territory, is now about 226,000 square miles, with a population of 340,000 whites and 900,000 colored.

This headland was discovered by Bartholomew Diaz, a Portuguese navigator, in 1846, but no permanent settlement at the Cape was effected by the Portuguese. It was used for the next century and a-half as a port for their ships, and by those of England and Holland as well.

In 1620, a party of Englishmen landed and took possession in the name of James I. but nothing came of this attempt, and it was not until 1652 that the Dutch East India Company took possession of Table Bay.

It was occupied by the English from 1795 to 1803, restored to the Batavian government in the latter year, and re-occupied by the British in 1806, whose possession of the place was ratified by the congress of Vienna in 1815.

It is only within the last seventy years that English colonization has been freely and fairly encouraged in the country. It is now quite prosperous, its exports in 1884 amounting to $35,000,000.

The colony now has 1,603 miles of railway open to traffic, and the total amount expended upon their construction and equipment was $73,000,000. They have also telegraphic lines, and submarine connection with England.

So far back as 1837, the Secretary to the Cape Government wrote a memorandum on the state of its free schools and generally on the state of education in the colony. This gave rise to the appointment of a Superintendent-General of Education, and the establishment of twelve principal schools.

In 1839, primary free schools, and secondary schools with a fee of $20 per annum were established. The teachers were paid by the government. Other schools were added about the same time to provide for the poorer children, chiefly of the colored race.

From that time the Government has been very liberal in aiding by grants from the Treasury, the establishment of schools throughout the colony. At the present time the Government co-operates with each section of the community in promoting education by means of grants in aid from the public revenue. The provisions of the higher and elementary education acts include grants in aid of Universities, the half salaries of teachers in the three grades of Public Schools, the half salaries of superintendents and teachers of District Boarding Schools. Capitation allowances towards the maintenance of indigent scholars, aid towards the salaries of teachers of District Mission Schools, and towards the salaries of teachers of Day Schools among the aborigines and native tribes. Capitation allowances to native apprentices and boys and girls in industrial institutions; assistance in equipping schools with furniture, books, maps, blackboards, scientific apparatus, etc.; also tools for native workshops, and sewing materials where needle-work is taught; aid for training elementary teachers, and aid for art schools.

In 1884 the colony had 1,004 schools of various classes, with 78,037 pupils; there was also five colleges, with 315 students in the University of the Cape of Good Hope which is an examining body.

The amount expended for education in 1884 was about $1,000,000, one-half being paid by the Government and the other half by local efforts.

The annual cost for instruction per pupil is $15.30; the fees vary from thirty-five cents to eighty cents per month in the country districts, but are much higher in the principal towns.

### *Educational Exhibit.*

There was no exhibit from the Public Schools.

The Art School, Cape Town, sent pupils' work, consisting of Freehand Drawings, Machine Drawings, Building Construction, Sepia Paintings from casts, etc.

The Art School, Grahams' Town, contributed a good collection of Outline and Shading from the round, Oil and Water Color Paintings, etc.

The Art School, Port Elizabeth, sent Freehand Drawings from nature, Geometrical Drawings, Machine Drawings, Isometrical Projections, Building Construction, Drawings from casts, Oil and Water Color Paintings, etc.

The Art School, Witenhage, exhibited Machine Drawings, etc.

In addition, there were excellent Drawings and Designs for Buildings, Maps and Diagrams, Paintings, etc., from private exhibitors.

## NATAL.

This colony is situated on the eastern side of South Africa, 800 miles beyond the Cape of Good Hope and facing the Indian Ocean, its area is 24,000 square miles; the total population is 423,000, including 35,000 Europeans, 27,000 Indian coolies and 361,000 Zulu-Kafirs.

Natal was first occupied as a British possession in 1843. Sugar is grown along the coast; it was introduced in 1851, and at the present time they have about 29,000 acres with an annual produce of about 18,000 tons; tea and tobacco are also grown in large quantities; coal is found in great abundance; it has been calculated that the coal fields of the Klip River county will yield over 2,000,000,000 tons.

There are 173 miles of railroad in operation, owned and worked by the Colonial Government.

Provision has been made for a system of education for the colony and the maintenance of Government Public Schools. These Schools are under the control of the Council of Education, consisting of twelve members, five of whom are ex-officio members of the Executive Council; the remainder are nominated by the Governor in Council. There is also connected with this Department a Superintendent of Education.

For Elementary Education there are four Model Primary and seven Primary Schools, distributed through the chief towns.

These Schools have an annual examination, on which depends capitation grants, payable to the teachers, as an incentive to good work, over and above their fixed salaries. There are also about forty Private Schools in receipt of Government grants, and subject to Government supervision.

For higher education there are two High Schools. Three Bursaries, each $200, to the High Schools, for three years, are open each year to competition among boys in the colony. There is also an exhibition of $750 per annum, tenable for four years, given annually, the holders to proceed to the United Kingdom for the term of the exhibition.

The amount voted by the Legislative Council for education in 1885, was $135,000. The fees paid by the pupils attending the Government Schools in 1885, amounted to about $16,000, which is paid into the treasury as general revenue.

The fees at the Primary Schools range from twenty-five cents to one dollar per month, and these are remitted when occasion is shown. During the past year 607 pupils received free education at these Schools.

### *Educational Exhibit.*

The Council of Education exhibited illustrations of the Educational System in Natal. There was also an excellent Map of Natal, showing the positions of European Schools, and several Photographs of Primary and High Schools.

The Scotch Mission Training School at Pietermaritzburg exhibited a collection of pupils' work, done by native children, Desk, Work-box, etc.

Industrial, Agricultural, Geological, Meterological, and other Maps and Charts, were also exhibited by the colony.

## ST. HELENA.

This small dependency of the British Empire is 1,200 miles from the nearest point of the African mainland. The whole Island is a huge mass of rock of volcanic origin, varying from 1,500 feet to 2,700 feet above the sea. The total area is about forty-five square miles. Population in 1881, 5,059.

This Island was discovered by the Portuguese in 1502, but was abandoned by that nation in 1600. It then became a bone of contention between the Dutch and English, and was captured by Sir Richard Munden in 1673. It was then granted by charter to the English East India Company, who retained it until 1836, and subsequently transferred it to the Crown for $500,000.

The chief historical interest attaching to St. Helena is derived from the fact that it was the scene of the captivity of the Emperor Napoleon during the last six years of his life, from 1815 to 1821. He died there in 1821, and his body was moved to Paris in 1840.

This Island was formerly well known as a port for homeward bound East Indiamen, but has lost much of its commercial importance since the opening of the Suez Canal. In addition to the loss from the falling off in the visits of shipping, a terrible destruction was caused in 1840, through the introduction of the white ant in some Brazilian timber, out of a broken-up slaver, which inflicted a loss upon the colony of $350,000.

James Town, the seat of Government, has a population of 2,500.

The Commissioners say, in their report, that the great drawback to the prosperity of the Island is, doubtless, the want of efficient and organized labor. The "native," whose wants are easily supplied by a meal of fish and rice, is of a naturally indolent disposition, and not alive to the necessity of working for his daily bread.

There was no School Exhibit from St. Helena, but a large collection of Photographs, Maps, Plans, Water Color Paintings, was contributed by different exhibitors.

## ASCENSION.

This small Island is 760 miles from St. Helena, and 900 miles from the west coast of Africa. Its area is thirty-eight square miles, with a population of about 200.

It was discovered by Gallego, a Portuguese, in 1501. It was garrisoned in 1815, by a detachment from St. Helena, and subsequently by a company of marines. During the period of the suppression of the slave trade, it was the head-quarters of the South African Squadron, and stores, barracks, batteries, etc., were built.

Georgetown, the only station, has a fort to protect the town. It is entirely under the admiralty, the Governor being a Captain of the Royal Navy.

The Island is visited by the sea turtles from Christmas to Midsummer, to deposit their eggs in the sand; as many as fifty or sixty are frequently turned of a night, and then removed to ponds or tanks in the town. They weigh from 600 to 800 pounds, and are sold to the shipping for $12.50 each.

The climate is said to be the driest and most salubrious in the world.

There was no Educational Exhibit from this Island, but they exhibited Views and Photographs, and an Admiralty Chart.

## TRISTAN D'ACUNHA GROUP.

This group of islands is in the South Atlantic, 1,300 miles from the Cape of Good Hope.

Tristan D'Acunha, like the other Atlantic islands, is of volcanic origin. It was discovered by D'Acunha, a Portuguese, in 1506; it is of circular ontline, in the shape of a truncated cone, rising to the height of 7,640 feet above the sea, with an extinct crater at the summit of the mountain. The diameter is about seven miles.

The Island was occupied by a detachment of artillery during the captivity of Napoleon, at St. Helena, and on their withdrawal in 1821, an artilleryman, two seamen, and four whalingmen, remained behind, and became the founders of the present settlement.

In 1867, H.R.H. the Duke of Edinburgh, when Captain of the *Galatea*, visited this Island, and conferred the name of Edinburgh on the settlement.

The population of the colony in 1883 was ninety-three, but this small community sustained a severe loss last year, no less than fifteen brave men losing their lives while endeavoring to assist a ship in distress.

Photographic Views and Charts were exhibited from this Island.

## INACCESSIBLE ISLAND.

This Island, which is a great resort for sea-birds, is a high mass of rock, with a table summit nearly square, with sides a mile in length. The highest point is 1,840 feet above the sea.

The outward bound Indiaman, *Blenden Hall*, was wrecked here in 1821, and the crew and passengers rescued and taken to Tristan D'Acunha. Two German officers were also wrecked in 1871, and suffered great hardships until taken off by H. M. S. *Challenger*, in 1873.

The exhibit from this Island consisted of specimens of rocks.

## NIGHTINGALE ISLANDS.

A group of three islands. The largest is one mile long and three-quarters of a mile wide, with two peaks, which rise about 1,000 feet above the sea.

The smaller islets, Stoltenhoff and Middle Isle, are large rocks about half a mile in length, 325 and 150 feet in height. A zone of kelp extends a quarter of a mile from the east side of the islands; they are visited by seals and sea-elephants in large numbers.

Specimens of rock from these islands were exhibited.

## CEYLON.

The Island of Ceylon is situated south-east of the southern extremity of Hindustan. Its area is about 25,364 square miles, with a population of nearly 3,000,000, but the proportion of Europeans to natives is less than two per 1,000. About 1,700,000 of the population are Buddhists.

This Island is of great historic interest. Sir E. Tennant, formerly Lieut-Governor and Colonial Secretary, says: "There is no island in the world, Great Britain itself not excepted, that has attracted the attention of authors in so many distant ages, and so many different countries, as Ceylon; there is no nation in ancient or modern times possessed of a language or literature the writers of which have not at some time made it their theme."

In the centre of the Island are found the ruins of Pollonnaruwa and Anurádhapura, the latter was the chosen capital of King Panduk Abhaya, 437, B.C., and remained the capital for twelve centuries. Historians write that the outer wall of this city enclosed 250 square miles, and was completed in the first century of the Christian era.

It still contains interesting records in stone and the sacred Bô tree. Major Forbes, in his "Eleven years in Ceylon," states than in the reign of King Devànampiya Tissa, 307, B. C., Anurádhapura received the collar-bone of the Gautama Buddha, his begging-dish filled with relics and a branch of the Bô tree, under which he attained Buddahood."

This relic of 2,200 years ago still flourishes, and is believed to be the oldest living tree of which there is any authentic record. It is held sacred throughout the Buddhist world, and is the goal of many a long pilgrimage. Even the fallen leaves are treasured by the pilgrims, and carried to distant lands.

The Portuguese were the first European settlers in Ceylon. From early in the 16th to the middle of the 17th centuries they held continuous possession. From 1656 to 1796 the Dutch governed the maritime provinces of the Island, the Central or Kandyan provinces remaining under their native rules. In 1796 the last remaining stronghold of the Dutch at Colombo capitulated to the English, and the Island became part of the British possessions in the eastern seas.

Colombo is now the capital, with a population of nearly 120,000.

Ceylon is celebrated for its plumbago; upwards of 240,000 persons are employed in mining and shipping plumbago. In 1882 upwards of 240,000 cwt. were exported. Over one-half of this quantity raised is exported to the United States for the manufacture of pencils, crucibles, etc.*

The manufacture of salt is a Government monopoly, and produces a profit, from $400,000 to $500,000 per annum.

The pearl fishing, though uncertain, is still, in favorable years, a valuable addition to the revenue. The same primitive system of gathering the oysters exists as in ancient times; every oyster is gathered by the hand of the diver, no dredger or implement is allowed to be used. The Government take as royalty two-thirds of the oysters thus gathered, which are sold by auction at the close of each days fishing. In the last successful fishery, the Government share realized about $300,000.

At present the most important industry is planting coffee in the hill districts. In 1874-5 the export of coffee was valued at $25,000,000. Tea is also largely cultivated. Although the Singhalese are mainly an agricultural race employed in tilling the soil, their exhibits of agricultural implements were of a very primitive style. The Singhalese plough of to-day is a counterpart of the implement used two thousand years ago.

### *Educational Exhibit.*

The Department of Education exhibited Singhalese Maps of Ceylon, Europe and Asia, prepared for vernacular schools. The Department also publish books for the English, Anglo-Vernacular and Vernacular Schools.

A large number of Buddhist old books were exhibited. These are composed of leaves of a palm tree; the writing is effected with an iron stylus, and the leaf washed over with an equivalent for ink, which, when the rest of the leaf is cleaned, remains on the letters. The whole of the leaves are then pierced and strung together and bound with a board on each side.

The Government of Ceylon sent a series of large Kandyan Paintings, which were used as a frieze round the walls of the Court.

Private exhibitors also sent Paintings, Photographs, Botanical Drawings, etc.

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*The Canadian Plumbago and its products, as exhibited at the Colonial Exposition, took the highest awards at the Philadelphia and Paris Exhibitions for pencils and crucibles, and it is to be hoped that this important trade will soon be in the hands of Canadians.

## MAURITIUS.

Mauritius, or Isle of France, is a beautiful and fertile island situated on the Indian Ocean. It is the largest British possession in the African seas. Its area, including the dependencies of Rodrigues, Seychelles, Amirante Isles, Chagos, etc., is about 708 square miles, with a population of about 360,000.

The island was taken by the British from the French in 1810. The greater part of the population consists of colored races, chiefly Hindu. They are largely engaged in the culture of coffee, sugar-cane, rice, etc.

Port Louis is the capital, with a population of about 70,000.

It consists of alternate hills and valleys, the highest point being nearly 3,000 feet above the sea.

The Executive Committee sent a large collection of Maps, Photography, Botanical Specimens, etc., but there was no educational exhibit.

## SEYCHELLES.

The Seychelles or Mahe Archipelago, consists of 30 small isles with a population of about 7,000. These islands are situated to the north of Mauritius on the Indian Ocean.

Originally discovered by the Portuguese, they were, after occupation by the French, ceded to England in 1814, and now form one of Her Majesty possessions. Although little known to fame, they are said to be abundant in fertility and natural beauty.

The exhibit consisted chiefly of sketches of fruits, flowers and other objects, and a variety of natural history specimens.

## STRAITS SETTLEMENTS AND PROTECTED MALAY STATES.

### Straits Settlements.

The Colony of the Straits Settlement, as defined by letters patent under the Great Seal of the United Kingdom, dated the 17th of June, 1885, consists of the Island of Singapore, the Town and Province of Malacca, the Territory and Islands of Dindings, the Islands of Penang, Province Wellesley, and their dependencies.

*Singapore* is situated at the extremity of the Malay Peninsula, and it contains an area of 206 square miles. It is the most important commercial station of this region. The town of Singapore, with a population of 139,200, is now the seat of government.

*Malacca* is the largest as well as the oldest of the Straits Settlement. It has an area of 659 square miles. The town of Malacca has about 5,000 inhabitants. Malacca was ceded to England by a treaty with Holland in 1824, in exchange for Bencoolen, in Sumatra, with an agreement that England would not form any settlements in Sumatra, nor the Netherlands in the Malay Peninsula.

The *Dindings* were ceded to the Colony by Treaty in 1874. The total area of these islands is about 200 square miles.

*Penang* was ceded to England in 1785 by the Rajah of Kedah,—it was the seat of Government of the Straits Settlement until 1832. The total area is 10,759 miles.

*Wellesley* was ceded to England by the Rajah in 1800, in order to enable the authorities to put down the prevailing piracy which played havoc amongst the European merchantmen. Its area is 207 square miles.

The total population of the settlements in 1881, was 423,834, the proportion of Europeans was about 3,000, natives of India 12,000, and the remainder Malay and Chinese, about equally divided.

British intercourse has extended with this region for over 300 years. It was formerly in the possession of the Dutch, and subsequently from 1827 to 1867 was an Indian dependency. It was then transferred by Act of Parliament to the Colonial Office.

It is a Crown Colony. The Council is administered by a Governor appointed by the Crown for a term of six years.

There are English teaching schools in the settlements, some supported by Government, others by endowments and voluntary contributions.

In Singapore they have eight English teaching schools, and a special school for Chinese boys. In Penang there are ten English teaching schools, and in Malacca five schools.

The attendance at these schools in 1884 was 4,098 ; the fees paid by pupils varying from 25 cents to one dollar per month.

Malay vernacular education is provided throughout the Colony in schools supported from the public revenue, with the exception of a small fee of 4 cents per month for each pupil.

### PROTECTED STATES.

In 1874, the three Native States, Perak, Selangor and Shujai Ujong, were taken under protection by Great Britain. They are governed by their native rulers. acting with the advice and assistance of an officer styled the British President, who is appointed by Her Majesty's Government, and is directly subject to the Governor of the Straits Settlements. Each state has its staff of European and native officers.

*Perak* has an area of 7,949 square miles, with a population of 118,000 persons.

*Selangor* occupies an area of about 3,000 square miles. The population amounts to 46,568 persons.

*Shujai Ujong* has an area of 660 square miles, with a population of about 14,000 persons.

### *Educational Exhibit.*

The Free Schools at Penang exhibited Maps drawn by Chinese boys.

Private exhibitors sent Malay-English and English-Malay books, and a large collection of publications printed in Singapore, Albums of Scenery, Photographs, etc.

The Ethnological department was fully represented by Models of Chinese Temples, and other buildings, Native Craft, Implements, etc., also a collection illustrating the daily life of the inhabitants of the Cocos, or Kieling Islands.

## HONG KONG.

The Island of Hong Kong is separated from the mainland of China by Victoria Harbour, Ly-se-moon pass, and Tathong Channel. It has a circumference of 27 miles and an area of 30 square miles, with a population of about 160,000, of which 130,000 are Chinese.

It was ceded to Great Britain, together with the Harbour and Islets in January, 1841, and the cession was confirmed by the Treaty of Nanking, in August, 1842. Hong Kong and its dependencies were erected into "the Colony of Hong Kong" by Letters-patent bearing date the 5th April, 1843.

The administration of the Colonies is at present in the hands of the Governor, with an Executive Council of six official members and a Legislative Council of six official and five unofficial members.

The chief town and centre of the Colonial Government is Victoria, situated on the north side of the island. It has a magnificent harbour of 4 miles long and from 2 to 3 miles wide, of sufficient depth for the largest vessels. There is excellent dock accommodation for the largest ships.

Hong Kong is in constant connection by means of steamers, with Europe, America and Australia, also with India and the coast ports.

The Government supports a Central School, the building for which being inadequate for its wants, will shortly be replaced by a new building now in course of erection, to be called Victoria College. In addition they have the Hong Kong Public School or St

Paul's College, under the direction of the Bishop of the Colony and a com
Joseph's College, under the direction of the Bishop of Acantho and the Christian Brethren. There are also schools supported by different missionary bodies, including mission vernacular schools for girls. In addition there are French, Italian and Spanish Convents.

### *Educational Exhibit.*

The Inspector of schools in Hong Kong sent an exhibit consisting of educational books, photographs of students at work, school materials, and models of desks, chairs, etc., used by the pupils.

The Italian Convent and the French Convent, each exhibited collections of needlework done by Chinese children. Private exhibitors sent maps, photographs, etc., and there was a great variety of models illustrating the manners and customs of the people.

## BRITISH NORTH BORNEO.

This is one of the latest additions to the large number of British Colonies distributed throughout the globe.

The territory of British North Borneo includes the whole northern portion of the great Island of Borneo, situated in the region of the Malay or East Indian Archipelago. The area of British North Borneo, including some small isles, is 31.000 square miles.

It was founded by the North Borneo Company, under a Royal Charter, bearing date the 1st November, 1881. The cession of territory by the Sultans of Brunei and Sulu, on conditions of the payment of an annual tribute, took place in December, 1877, and January, 1878. This company secured, as it is by a Royal Charter, has its possessions, which are now a part of the British Empire, protected by the British flag from all aggression or encroachment on the part of any alien or foreign power.

The Government is administered by a Governor, assisted by a Council and by a Colonial Secretary and President, and the mode of Government of a British Crown Colony is adhered to as far as practicable.

The greater portion of British North Borneo is covered with dense forests, containing trees up to ten feet in diameter and of great height, many of them being over 100 feet to the first branch. There are about 78 known kinds of forest trees; some of these are very valuable. The woods are used for furniture, house building, engineering, etc.; one variety, Billian, is in great demand in China and the Straits Settlements, for wharf piles, etc., as its specific gravity is so great that it sinks in water and is very hard and durable, and perfectly proof against the 'Teredo' or sea worm.

It is quite probable that the immense trade now done in the exports of the woods of North America to China and Australia, may be diverted to British North Borneo, as these countries are only about 1,100 miles distant.

As the European population is very small, provision has not yet been made for education in this settlement.

The exhibit consisted chiefly of natural products, including woods, rattans, gutta percha, india rubber, vegetable tallow, gum, gold, coal, etc.

## BRITISH GUIANA.

This Colony is situated in the north-east of South America; its area is computed at 76,000 square miles.

The first colonists were the Dutch, who settled on the Pomeron Coast in 1580. In 1781 the British captured all the possessions of Holland in South America. They were subsequently surrendered to the French, regained by the Dutch, who in 1796 yielded them to the British, in whose hands they have remained, with the exception of a brief period in 1802-3, up to the present time.

The population of British Guiana in 1885 was about 270,000, exclusive of 900 troops in garrison and seamen in the forts.

The Aboriginal Indians are scattered through the interior. The only dress an Indian usually wears is a strip of cotton bound tightly round their loins and secured by a cord tied round the waist, with a string of beads round his neck, and a crown made of bright feathers. The women are as scantily attired as the men, but wear more ornaments. Some of these Indians work upon the timber grants, but they are chiefly occupied in fishing, hunting, etc. They are clever in constructing boats and canoes, specimens of which were to be seen at the exhibition.

Georgetown is the metropolis and chief port of British Guiana. It has beautiful public buildings, law courts, Catholic cathedral, hospital, market, etc.; it is also supplied with gas, waterworks, tramways, and a railway. There are two newspapers published daily. There is also a Portuguese paper.

The Colony is divided into eighteen parishes, under the charge of the clergy of the Church of England or Church of Scotland. The total expenditure of the Colony in 1885, on account of the clergy and missionaries was over $100,000.

About $125,000 was expended for education. There are 177 schools receiving Government aid, including Church of England, Church of Scotland, Church of Rome, Wesleyan London Missionary, Congregational and Estate Schools. The principal school is Queen's College, which is a Government institution.

There was no Educational Exhibit from this Colony, but private exhibitors sent a collection of maps, photographs, and water-color paintings. In addition the Commissioner had a very interesting Ethnological collection, consisting of weapons and other articles in use among the native Indians.

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## WEST INDIES.

The numerous islands of this region are embraced under three divisions—the Greater Antilles, the Lesser Antilles, or Windward and Leeward Islands, and the Bahama Islands.

Combined the West Indies represent an area of 100,000 square miles, inhabited by 1,500,000 British subjects.

In order to illustrate as thoroughly as possible the history of the colonies discovered by Columbus, in 1492, a number of pictures, historical relics, books and engravings, were exhibited on the West Indian gallery. In this collection we notice a series of oil paintings of the Kings and Queens of England who are connected with the history of the West Indies; also ancient portraits of Columbus, and the Diego Ribero Map, loaned by the S. Congregation of Propaganda Fidei, Rome, by permission of His Holiness, Pope Leo XIV. This map was executed by Diego Ribero in 1529, and is reported to be the earliest complete map of the world in existence. It measures 7 feet by 3 feet, and is on parchment.

### JAMAICA.

This island was discovered by Columbus in 1494. It was under Spanish rule until conquered by the English during the administration of Oliver Cromwell.

The total area of Jamaica is about 4,200 square miles, and the population, according to the last census, was 580,000. Of these are whites, 14,432; colored, 109,946; blacks, 444,186, the remainder being Coolies and Chinese.

Jamaica is divided into three counties; Surrey to the east, Middlesex in the centre, and Cornwall to the west, The eastern part is mountainous, a range known as the Blue Mountains, varying in height from 5,000 to 6,000 feet above the level of the sea, traversing from east to west. The coasts contain numerous safe and excellent harbors, over thirty of which are capable of affording shelter to the largest vessels. The finest is Port Royal, or Kingston Harbor, 6 miles long by 2 miles wide.

The principal towns are Kingston, with a population of 40,000 inhabitants, and Spanish Town, the seat of Government, population about 8,000.

Prince William, Duke of Clarence, visited Jamaica in 1782, and was the first member of the Royal Family who ever landed on its shores. Since then H. R. H. Prince Alfred, Duke of Edinburgh, was entertained in 1861, and the two sons of the Prince of Wales in 1880.

The most remarkable event that has happened during the present century in connection with this island is the emancipation of slaves in 1833.

There was no Educational Exhibit from Jamaica, and the only exhibits of an educational character were photographs of public buildings by the Jamaica Institute; etchings, etc., from the Women's Self Help Society; and books and natural history specimens from private contributors.

### TRINIDAD.

Trinidad, discovered by Columbus in 1496, is the largest of the islands in the Caribbean Sea known as the Lesser Antilles. The total area of the island is 1,754 square miles; population by last census, (1851) was 153,128.

Settled by the Spanish in 1588, Trinidad has been the scene of sanguinary conflict between them and the French, and the latter and the English, finally resting with the English in 1797.

Colonel (afterwards the famous Sir Thomas) Picton, was appointed the first English Governor. Trinidad was finally ceded to Great Britain by the Treaty of Amiens, but not without great opposition on the part of Napoleon, then First Consul, who supposed from its geographical position, it would command the trade of the great rivers of South America.

During the first five years after its capture, over $1,000,000 worth of articles of British manufacture were sold annually by the merchants of Trinidad to the traders from Venezuela, and a far larger trade was carried on clandestinely, as is proved by the fact that Colonel Picton reported to the Secretary of State that Spanish launches annually carried away articles of British manufacture to the value of $8,000,000; subsequently, however, Trinidad was fated to be looked upon by British statesmen merely as a sugar-producing colony.

Although the colony has always been immediately under the Crown, the Commissioner states that remnants of the old Spanish law still remain; names of places and estates are Spanish still, the leading residents bear French and Spanish names, and the society of the capital includes a complete French circle even now.

The capital is Port of Spain, with a population of 32,000. Trinidad has also the Port of San Fernando, which is connected by a railway recently completed by the Government.

Photograph views of public buildings, etc., were exhibited, also oil and water-color paintings, and a collection of 235 specimens of woods with English, French, Spanish and scientific names attached.

### BARBADOS.

Barbados is the most windward of the Caribbean Islands; its total area is 166 square miles, with a total population of 171,860—whites, 16,054; coloured, 155,806.

First owned by the Portugese at an unknown date; it was named by them "Los Barbados," from the number of bearded fig-trees or banyans which were found growing there.

This is one of the oldest British colonies; in the year 1605 the "Olive," an English vessel, touched at the island and landed some men, who inscribed on a tree "James, King of England, and of this island."

James I. made a grant of this island to the Earl of Marlborough, and the first English Governor was appointed in 1625. The island has never been severed from England. The principal town and port is Bridgetown, with about 21,000 inhabitants.

The chief product of the island is sugar. At first the sugar-cane was only cultivated for the purpose of brewing a refreshing drink. In 1640 a Dutchman from Brazil taught the science of allowing the cane to ripen and of boiling the juice. At the same time the planters learnt to distil rum, called at first "kill-devil."

Out of 106,470 acres, an area of 100,000 acres is now devoted to canes, the remainder being taken up with roads, buildings, etc.

The colony may now be described as possessing representative institutions, but the Crown has a veto on legislature, and retains the appointment and control of public officers. The Government consists of a Governor, Executive Council, and a Legislative Council, appointed by the Queen, and a House of Assembly having twenty-four members elected annually on the basis of a very low franchise.

There is a large number of Elementary Schools on the island, supported by school fees and Government aid. Also many Higher schools, endowed and aided by the State, all of the Church of England. There are also Moravian and Wesleyan schools. The Codrington College, founded in the year 1710, is connected with the University of Durham, and its students are eligible for all the degrees.

Barbados is the cnly place in the West Indies where a university education can be obtained.

Some paintings and photographs were exhibited, but no educational appliances.

## THE WINDWARD ISLANDS.

The Windward Islands includes the islands of Grenada, St. Lucia, St. Vincent, and Tobago, containing an aggregate of 622 square miles. They are presided over by a Governor, or Chief, who resides in Grenada, the seat of Government, the other islands having a resident Administrator. Each island has its separate legislature, laws, and tariff.

### GRENADA.

This island is situated in the Caribbean Sea. It was discovered by Columbus in 1498, and was inhabited by a people of war-like habits called Caribs. It is about 21 miles in length, and 12 in breadth, with a population of 46,425. In 1650 the Island was taken possession of by Du Parquet, a Frenchman, who eventually got rid of the natives; after several battles their extermination was effected by driving the last remnant of the Caribs, about fifty, into the sea. The place from which they threw themselves into the sea was called *Le Morne des Sauteurs* (the Hole of the Leapers), a name it has retained to the present day. Du Parquet transferred possession of the island to the Count de Cerillac, in 1656, for 30,000 crowns. Subsequently it was sold to the French West Indian Company, whose charter being abolished in 1674, it became vested in the Crown of France.

In 1762 Grenada surrendered on capitulation to Great Britain, and was ceded to that power by the Treaty of Paris in 1763. It was recaptured by the French in 1799, and restored to the British Government at the general pacification in 1783.

The present form of local Government in Grenada is that known as the Crown Colony system. The Governor, who is appointed by the Queen, is Governor-in-Chief of the other islands composing the Windward Group.

The chief produce of the island is cocoa.

The principal town is St. George, with a population of about 4,000. It was originally built by the French, who named it Port Royal. It has a large bay, which is estimated to be able to afford shelter to 1,000 ships of 400 tons each.

Education was formerly much neglected, but of late years they have a good system of Elementary schools, which is working with satisfaction. In 1885 a Grammar School was established by some private persons which has since been endowed by the Government, and is said to promise great results.

There was no educational exhibit from Grenada.

## St. Vincent.

St. Vincent is the most English of the group of the Windward Islands; it has an area of about 140 square miles. The capital of the island is Kingstown, with about 6,000 inhabitants.

St. Vincent was not finally conferred to England till 1795. In the early part of the 18th century the French and English began to treat it as neutral, both disliking, more or less, the task of dealing with the Caribs. It is one of the two remaining islands, the other being Dominica, where the last traces of the Caribs, or old savages of the West Indies, remain. There are 192 Caribs and half Caribs in St. Vincent; they are now a well-behaved race, their old character for ferocity and treachery having been tamed down by the march of civilization.

St. Vincent formerly exported coffee, cocoa, indigo, and tobacco, but the cultivation of sugar gradually superseded that of other products.

St. Vincent is celebrated for its arrowroot.

There was no school exhibit, but excellent models and ethnographical collections representative of the island were exhibited.

## Tobago.

Tobago is situated about 75 miles from Grenada, and 20 miles from Trinidad. Its total area is 114 square miles.

Tobago was visited by British navigators in 1580, when the English flag was first planted on the island; it was then uninhabited. In 1625 some Englishmen from Barbados attempted to form a settlement, but most of them were killed by the Indians who then occupied the island. The history of this island has been a very eventful one.

It has been on different occasions a possession of the Dutch, French, and English, and several sanguinary battles have taken place for its conquest. Eventually it fell into the hands of the English, and by the Treaty of Paris in 1762 was surrendered to England. In 1764 it became a legally constituted colony, and the first Lieut.-Governor was appointed.

In 1778 an armament was fitted out by the American States, then in their early days of independence, having for its object the conquest of Tobago. A short engagement ensued, in which the British were successful.

In 1781 Tobago was conquered by the French; in 1793 it was re-taken by the British. By the Treaty of Amiens in 1802 it was surrendered to the French. In 1803 war having broken out again between England and France, Tobago became once more a bone of contention. A British naval and military force invaded the island, and the French Governor capitulated on condition that his garrison should be allowed to return to France. From this period Tobago has remained in the indisputed possession of the English, having been ceded to Great Britain in 1814 by the Treaty of Paris.

Tobago has made very little progress, and the population has not increased 4,000 during thirty years.

They depend upon one mail a month for communication with the outside world, and have no cable connection with other countries. Out of 73,313 acres which it contains, only about 10,000 are under cultivation; some of the best land in the colony is allowed to lie unproductive for the want of roads to the interior of the island.

They had no Educational Exhibit.

## St. Lucia.

St. Lucia, twenty-five miles to the north-east of St. Vincent, has a total area of 243 square miles, with a population of over 40,000. The island is almost entirely covered with high mountains, among which is the Souffriére, a volcano in occasional activity.

The first attempt at colonization was by some English settlers in 1639; in the following year the Caribs massacred many of them and drove the rest away. The French next took possession of the island; in 1663 it was captured by the British and was ceded to the French in 1667.

At the Peace of Paris, in 1763, the Earl of Chatham, by the advice of Admiral Rodney, refused to cede it to France, and on the renewal of hostilities, it was one of the first points of attack, and fell once more to Great Britain, but was restored to France at the Peace of Versailles. In 1803 it was again re-taken by Great Britain, and since that time has continued under British rule.

The chief staple of the island is sugar, but attention is now being turned to the cultivation of cocoa, tobaccos and spices.

The capital is Castries, with about 4,550 inhabitants.

They have fifteen elementary schools distributed among the ten towns and villages of the island. These schools are of two classes; those managed by the Roman Catholics and those managed by the Trustees of the Mico Charity, which are undenominational: they each have about the same number of pupils.

The Convents in Castries and Soufriére have excellent schools for over 700 girls.

There was no educational exhibit from St. Lucia.

## THE LEEWARD ISLANDS.

The Leeward Islands are the most northerly of the groups which constitute the Lesser Antilles.

Politically, they are a federation, that is to say, an aggregation of independent governments and legislatures, which, for certain purposes, have delegated their powers to one central and partially supreme government.

### Antigua.

Antigua has an area of 108 square miles; the population in 1881 was 34,964.

This island was discovered by Columbus in 1493. It was at various times in the possession of the Spanish, French and British, whose settlers were exposed to frequent attacks from the Caribs.

Antigua is the seat of the general government of the Leeward Islands. It has a local government administered by the Governor of the Leeward Islands, assisted by an Executive council, and a legislature composed of twenty-four members, twelve of whom are nominees of the Crown, and twelve are elected by the people.

The capital is St. John's.

The chief product is sugar; it is said that the introduction of the steam plough has conferred advantages that cannot be over-estimated, as by its use lands which have long lain waste are being re-claimed and brought into cultivation.

#### *Educational Exhibit.*

Pupils' work from Cedar Hall Moravian School. Samples of Needlework from Lebanon Moravian School, Map of West Indies, collection of Books, old Antigua Newspapers, etc.

### St. Christopher and Nevis.

This presidency is composed of two islands, divided by a strait from two to three miles wide.

Nevis was united to St. Christopher in 1883.

St. Christopher, commonly known as St. Kitts, lies nearly west of Antigua, it has an area of 68 square miles with about 2,000 inhabitants.

This island was discovered by Columbus in 1493; it was then densely crowded with Caribs. A settlement was founded in 1623. St. Christopher is believed to be the mother colony of the English and French settlements in the Caribbean Sea.

In 1627 the English and French agreed to divide the island between them. In 1689 the French took entire possession of the island. It was re-taken by the English in 1690, restored to the French in 1697, again captured by the British in 1702, and finally ceded to the British Crown by the Peace of Utrecht in 1713. Subsequently the island became part of the general government of the Leeward Islands.

The capital is Basseterre, the seat of government, with a population of about 7,500.

There are 18,507 acres of land under cultivation; the chief products are sugar, coffee and cocoa; from 1878 to 1882 they exported 1,114,269 barrels (of 100 pounds) sugar, 2,224,723 gallons of molasses, and 287,284 gallons of rum. They have also three large salt marshes which produce about 14,000 pounds of salt annually.

As there are no harbors in St. Kitts or Nevis, the produce has to be conveyed to the shipping places in cattle waggons and carts drawn by mules and horses.

Nevis lies immediately to the south-east of St. Christopher; its area is about fifty square miles, it formerly had a population of 20,000, which is now reduced to less than 12,000.

It was settled by the English in 1625 and became one of the chief slave markets of the West Indies. The emancipation of the slaves had a most crushing effect on Nevis and caused a complete collapse of credit. It is said that the condition of the laborer was then miserable in the extreme, and his wages scarcely averaged ten cents a day. At the present time, laborers earn sixty-six cents per day. The owners of estates are wealthy, and financially Nevis now ranks amongst the most prosperous of West India Islands. Its principal product is sugar.

It is of historical interest as the place where Lord Nelson was married, and passed many years of his life.

The chief town is Charlestown.

There was no educational exhibit from these islands, but a very fair collection of Pottery, Vases made from wood, Shell work, Bead work, Carib implements, and what was of considerable interest, the Register of St. John's, Nevis, containing a record of the marriage of Horatio Nelson and Mrs. Nisbet, on March 11th, 1787.

## DOMINICA.

This is one of the largest of the West India Islands; it contains 291 square miles. The total population at the census of 1881 was 28,211, of whom 27,204 were natives of the island. There were 309 Caribs, of whom 173 were considered to be actual Caribs by descent, without any admixture of negro blood.

Its mountains are next in height to those of Jamaica, but even to the top they are densely clothed with foliage. It is said that from peak to shore the island is a mass of virgin soil and unopened forest.

Dominica was granted to the Earl of Carlisle in 1627; by the treaty signed at Aix-la-Chapelle in 1748, it was stipulated between the English and French that Dominica should remain neutral. In 1776 it became by conquest a dependency of England. Commissioners were sent out for the purpose of surveying and selling the lands capable of cultivation, and the quantity sold yielded to the British Crown the sum of over $1,500,000.

In 1805 the French landed at Roseau, the principal town, which was accidently set on fire, and the Governor was obliged to capitulate, paying the enemy $60,000 to quit. Since this period the island has not known war.

Only 20,000 acres are under cultivation. There remain at least 140,000 acres available for the cultivation of tropical and sub-tropical plants.

The principal products are sugar, cocoa, lime-juice and fruit. Within the past few years an export trade to New York has been established in oranges, which grow almost wild throughout the island.

Dominica is not in a flourishing condition; its trade is small, finances at a low ebb, and houses and roads in a bad condition.

Although there are forests containing valuable woods for building and other purposes, they are only exported in small quantities.

It has been recommended that Her Majesty's Government assist the colonists in constructing roads through the island, so as to open up the interior for the cultivation of staple products.

There was no school exhibit, but there were collections of Models, ancient Carib Implements, photographs of Scenery, etc.

### MONTSERRAT.

This island is situated about twenty-six miles south-east of Antigua, its area is about thirty-five square miles, population 11,000.

It was discovered by Columbus in 1493, and settled by the English in 1632, but the French took it in 1664. It was restored to England in 1668, when it was granted by charter a constitution of its own, with a Legislative Council and House of Assembly. It capitulated to the French in 1782, but was again restored to England in 1784, in whose possession it has since remained.

Under the Federal Act, Montserrat is a Presidency, forming part of the colony of the Leeward Islands. The President is the Resident District Magistrate and a Commissioner of the Supreme Conrt. The Courts of Queen's Bench and Common Pleas are merged into "The Supreme Court" with its three judges going on circuit, and holding the court alternately in each island two or three times a year.

The island consists of a series of rocky hills, with fertile valleys between. The principal product is sugar, but of late years the growth of lime trees and the manufacture of lime-juice has given Montserrat a better known position in commerce.

The population is rapidly increasing, which is attributed to the salubrity of the climate, and to the government provisions of medical attendance and medicines free for all children of laborers under ten years, and all old persons over sixty.

The Commissioner says: "A very wide system of education has also been granted to the children of laborers since emancipation, embracing one in eight of the population from 1837 to 1856, and one in eleven since the new Acts came into operation, by which grants in aid of education have been made from the public purse, and have reached in some years to five per cent. of the entire revenue. An enquiry into the working of these Acts whereby the cost of education per head has been almost quadrupled, has recently been made by a Government Commissioner, the result being that education has been proved to have advanced under them, but they stand condemned in the matters of expenditure."

The principal town in this island is Plymouth.

There was no educational exhibit.

### VIRGIN ISLANDS.

The Virgin Islands consist of a cluster of rocks to the westward of Porto Rico Those of them which belong to Great Britain are Tortola, Virgin Gorda and Anegada The total area is about fifty square miles, with 5,500 inhabitants.

Tortola has an area of twenty-six square miles, consisting entirely of hills, which rise about 1,600 feet above the sea. Roadtown is the capital of the group.

Virgin Gorda is about ten square miles in extent, chiefly hilly and barren in its eastern part.

Anegada is a low-lying coast island, with an area of about fourteen square miles.

For purposes of administration, the group has for a century belonged to the Leeward Islands, having its own legislature.

In 1867, a fearful hurricane destroyed about two-thirds of the houses, including the churches, school-houses, etc. In 1871, the islands again suffered from a hurricane, but not so severely. These islands are not in a prosperous condition.

There was no school exhibit.

## BRITISH HONDURAS.

British Honduras, or Belize, is the only British dependency in the Southern portion of North America. It is bounded on the north by Yucatan, on the east by the Bay of Honduras, on the south by Guatemala, and on the west by a straight line drawn from the rapids of Gracias a Dios, on the river Sarstoon, to Garbutt's Falls, on the river Belize, and thence northward to the Mexican frontier. Total area, 7,562 square miles.

The coast was discovered by Columbus in 1502. The settlement was originally called Belize. In 1638, some Englishmen were shipwrecked and settled here.

So far back as 1671 it was considered a place of importance, as the Governor of Jamaica reported to the King that, "it increased His Majesty's customs and the national commerce more than any of His Majesty's colonies." This is accounted for by the fact that logwood, which was then its staple product, sold for $500 per ton; it is now sold so low as $10 to $15 per ton.

In 1763, a treaty was entered into with Spain, notwithstanding which several battles took place during the next twenty-five years between the English and Spaniards. In 1798, it became English by right of conquest.

Although one of the older settlements, it is one of the youngest colonies. It was not made a colony until 1862, when a Lieutenant-Governor was appointed, under the Governor in Chief at Jamaica.

In 1879, a Governor was appointed. The form of Government is now that of a Crown colony, in which the Crown has the entire control of legislation, while the administration is carried on by officers under control of the Home Government.

The industries of this colony are wood-cutting, growing and manufacturing sugar, cultivation of coffee, tobacco, fruit, etc. The average export is 3,000,000 feet of mahogany, and 17,000 tons of logwood. The cultivation of fruit for the American market is now carried on in consequence of steam communication having been established with New Orleans. The capital is Belize.

The schools in the colony are generally denominational, established and superintended by the clergy of some religious body. They have one Church of England, one Presbyterian, seven Roman Catholic, thirteen Wesleyan, one Baptist and two private schools.

Teachers are granted certificates according to their merits, and receive Government aid under certain conditions.

There was no educational display, but good collections of natural history specimens, photographs, etc., were exhibited.

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## THE BAHAMAS.

The Bahamas consist of an aggregation of twenty-nine islands, 661 bays, and 2,387 small islets or reefs, which stretch from the northern coast of St. Domingo, to the eastern coast of Florida, a distance of over 600 miles. The principal island is New Providence, which contains the capital, Nassau, with a population of 13,000, and is twenty-seven miles long and seven miles wide. The other principal islands are:—Grand Bahama, Eleuthera, Andros, Abaco, Long Island, San Salvador, Rum Bay, Imaqua, Exuma, Ragged Island, Crooked Island, Berry Island and Harbor Island.

The population, according to the last statistical report, is 44,000, of whom 11,000 were white, and the remainder descendants of liberated Africans.

The Bahamas were discovered by Columbus in 1492. They were inhabited by a hospitable people of the Caribee tribe who believed in a God—a great spirit—and in a future state of reward and punishment. A few years later the followers of Columbus, who had settled in Hispaniola, needed hands to work their mines, and invented a diabolical plot to induce the natives of the Bahamas to accompany them to Hispaniola. They were told that if they would embark upon the Spanish ship and go with them, ere a day and night were passed they would embrace their departed friends, and dwell with them eternally. About 50,000 natives left the island and died in torment, being overworked, scourged and starved by their ferocious task masters.

In 1512, the Bahamas were visited by Ponce de Leon, who went there in search of the fountain of eternal youth. The islands remained almost uninhabited for nearly a century, although they still continued to be Spanish property, having been bestowed, with the whole of the new world, upon Ferdinand and Isabella by Pope Alexander VI.

In 1578, Queen Elizabeth bestowed on Sir Humphrey Gilbert all lands and countries that he might discover, that were not already taken possession of by some Christian and friendly power. As Spain was not a friendly power, Sir Gilbert annexed these islands. Subsequently, repeated attacks were made by the Spaniards. The first British Governor was appointed in 1670.

The present Government is based on the British constitution. They have a Governor, Executive Council of nine members, a Legislative Council of nine members appointed by the Crown, and a House of Assembly of twenty-nine members.

The principal exports are sponges, turtle, coral and shells.

They are now well supplied with public schools, also an art school, reading-room and library, scientific societies, etc.

In 1861, the census gave 8,506 as able to read and write, out of a total population of 35,287. This is less than twenty-five per cent., but they say it is the reverse now as there is scarcely a child over seven years of age who cannot read or write.

### *Educational Exhibit.*

Carved ornaments from the Nassau School of Art, collection of Natural History, etc.

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## WEST AFRICAN SETTLEMENTS.

These settlements consist of Sierra Leone and Gambia. By an order in council, 26th January, 1876, they were united into one Government, to be called the West African settlement.

### Sierra Leone.

Sierra Leone is a small settlement at the mouth of the Rokelle or Sierra Leone river. It has an area of 468 square miles, with a population of over 37,000, of whom only 129 are white. The climate is very deadly to European residents. It was ceded to Great Britain in 1787 by the native chiefs, and was made a residence for freed slaves from the United States and West Indies. A large island called Sherboro was added to it in 1862, when slavery was abolished.

The settlement also includes the Isles de Los; and by treaty 1876, Her Majesty has the right to collect customs duties along the coast between Sierra Leone and Sherboro.

The government is administered by a Governor and Executive Council, and a Legislative Council of five official and four non-official members.

The principal exports are cocoa-nuts, gums, hides, india rubber, etc.

The principal town and seat of Government is Freetown.

There was no educational exhibit, but the native industries, including embroidered garments, decorative gold and ivory work, etc., showed excellent workmanship, and considerable talent in artistic decoration.

### Gambia.

The settlement of Gambia lies 500 miles north of Sierra Leone. It has an area of twenty-one square miles, and population of 14,190.

It was made a British colony in 1588, when Queen Elizabeth granted a patent to some English merchants. The slave trade was extensively carried on until emancipation.

The River Gambia empties into the Atlantic. At the mouth of the river is Bathurst the principal town. There are three other posts or trading stations along the banks of the river, viz., British Combo, Barra, and McCarthy's Island.

This settlement is now under the Government of Sierra Leone.

The trade is chiefly in exporting hides, rice, timber, gold-dust, ivory, etc.

### *Educational Exhibit.*

There was a collection of educational books in the native language, consisting of grammars, catechisms, dictionaries, etc. They also exhibited some leather work ornamented with excellent geometrical designs, carvings in wood, and natural history specimens. Amongst the natural products were the Verach seeds, which are used by the natives as candles, one nut being placed after another in such a manner that the flame is transmitted from seed to seed so as to give an uninterrupted light for a considerable period.

## THE GOLD COAST COLONY.

The name Gold Coast is given to that portion of the shores of the Gulf of Guinea between the rivers Asini and Volta. It has a total area of 16,620 square miles, with a population of 520,000.

The Gold Coast has been occupied as a British settlement since 1672, when the Royal African Company was formed, which built several forts along the coast. These forts were transferred to the Crown in 1821.

This was soon followed by the first Ashanti war, and on January 24th, 1824, the Governor, Sir Charles McCarthy, was defeated and slain, and his head carried to Coomassie. This was ended by a victory over the Ashantis near Accra, in 1827.

After this the country was again placed in the hands of a mercantile body, which continued until the second Ashanti war in 1863.

These events were followed by a re-arrangement of possessions between the English and the Dutch, which occasioned so much trouble to the latter power, that, in 1871, Holland abandoned to Great Britain all its rights on the Coast. This convention not being approved of by the King of Ashanti, he invaded the British Protectorate in 1873, and so commenced the third and last Ashanti war. Troops were sent out under Sir Garnet Wolseley, who captured Coomassie on the 4th February, 1874.

After this war the settlements on the Gold Coast and at Lagos were by Charter united under one constitution as the Gold Coast Colony, which continued until the present year, when Lagos has again been formed into a separate colony.

There was no Educational Exhibit, but the general exhibit, consisting of textile fabrics, gold and silver ornaments, etc., of native workmanshlp, showed a considerable knowledge of artistic design. This exhibit included the gold ornaments which were paid by the Ashantis to the British Government as a portion of the indemnity claimed at the close of the war in 1874; also the Golden Fetish Axe, which was sent to the Queen by the King of Ashanti in 1881 as a token of peace and submission.

## LAGOS.

Lagos, or Niger Territory, is situated on the Bight of Benin. This colony includes Badagry on the west, and adjoining Dahomey; Lagos Island, lying among Lagoons in the centre; and Palma and Leckie on the east. The population in 1881 was 75,270, (only 94 whites).

Lagos was formerly the headquarters of the slave trade, and was ceded to Great Britain in 1861, by King Docemo, who received a pension of $5,000 per annum until his death, which took place in 1885. At first the settlements of Lagos were formed into a separate Government. In 1866 they were amalgamated with the West African settlements, under the Government of Sierra Leone. In 1874 they were amalgamated with Gold Coast Colony, and in 1886 were separated from the Gold Coast, with a constitution of their own.

The chief exports are palm oil, indigo, ivory, cotton, etc.

### *Educational Exhibit.*

There were no exhibits from schools, but several of the general exhibits were real art examples. A collection of incised and *repousse* brass utensils showed great beauty of design; some ivory tusks were artistically ornamented, and the textile fabrics, including weaving and embroidery, were beautifully ornamented. A collection of photographs was included in their exhibits, also two illuminated Korans and a Mahometan MS., which is a good example of early illuminative art.

## MALTA.

Malta is situated in the very centre of the Mediterranean, about 58 miles from Sicily and about 180 from the mainland of Africa. Its area is 95 square miles, with a population of 150,000.

Malta is of great historical interest; the Phœnicians settled here B. C. 1519. It was subsequently under the Carthaginians and Romans, and was granted by the Emperor Charles V., early in the 16th century, to the Order of the Knights of St. John of Jerusalem. The Knights of Malta held possession of this island for more than three centuries, until the final dispersion of the Order.

During the past century the spirit of British industry began to show its power by erecting public works and increasing the productive energy of the colony.

The principal products are cotton, potatoes, corn, fruit, and honey. In its manufactures are three specialties, viz., stone work, lace, and jewellery.

An Art School, recently established in Valetta, the chief town, has been the means of introducing modern designs in lace work, so that this trade has now become a most important branch of manufacture, employing 4,500 women and girls, with a revenue of about $250,000 per annum.

There are 173 public and private schools, colleges and ecclesiastical institutes in Malta. The number of pupils attending the schools show a marked and continual increase. In 1842 there were only 3,833 pupils; in 1881 the number had increased to 12,390, exclusive of adults who attended evening and Sunday School classes.

### *Educational Exhibit.*

The Orphan Schools at Floriana and Cospicua exhibited specimens of inlaying and fret work in wood and ivory. The Sisters of the Good Shepherd sent examples of Maltese lace, point lace, embroideries, etc., and private exhibitors sent specimens of bookbinding and typography, also sacred and secular music.

## CYPRUS.

Cyprus is the most easterly island in the Mediterranean; its area is 3,723 square miles, with a population of 186,173, sub-divided as follows:—Greek Church, 137,631; Mohammedan, 45,458; various religions, 3,084.

Cyprus is of great historical antiquity, and is referred to in the Book of Genesis under the name of "Kittim." It was conquered by Thothmes III. of Egypt, about B.C. 1600, and became subject to Assyria B.C. 725. It was annexed to the Roman Empire B.C. 57. It was the birth-place of Barnabas the Apostle, and was ruled by him and St. Paul in the early days of the Christian Church.

In ancient times Cyprus is reported to have had a population of 3,000,000. In 1191 Richard Cœur de Lion, King of England, when on his way to the Holy Land, conquered the island and sold it to the Knights Templars for a sum equal to $1,600,000. In 1571 Cyprus was conquered by the Turks, and remained a part of the Ottoman Empire until 1877, when it was ceded by the Sultan to Queen Victoria, in consideration of an annual payment equivalent to the surplus revenues which it had yielded to the Ottoman treasury in the preceding five years. Consequently the island of Cyprus is burdened annually with a payment due to the Sublime Porte which is estimated at $464,000. As the excess of revenue is not sufficient to pay this amount, the balance has to be made good by the British Government.

The products of the soil are one of the principal sources of revenue. Their grain, although it ranks amongst the first in the world, is depreciated in value from the defective system of threshing*, which is the same as was followed in patriarchal times. The grain, when brought from the field, is spread on a level piece of hard ground, and a flat piece of wood, having small pieces of flint inserted into its lower surface, is drawn over it. In this process small stones are detached from the ground, and of about the same size as the grain; no ordinary fanning machine can separate them.

Considerable improvement, however, has been made in the general condition of the island since the British took possession in 1878.

This island has for many centuries suffered severely from the ravages of locusts. During the past four years $335,000 has been expended in reducing their numbers.

Administration—Cyprus is administered under the Colonial office by a High Commissioner, assisted by a Legislative Council, composed of 18 members, 6 of whom are appointed by the Crown, and 12 are elected by the people.

Education is now in a progressive state. The grant for education in 1885 was $15,000. The number of schools in operation was 236, viz., 165 Greek, 63 Moslem, 6 Roman Catholic, 1 Armenian, and 1 Jewish.

In addition there are 12 schools for children kept by Moslem dames at their own houses.

### *Educational Exhibit.*

Their exhibit included some excellent physical and other maps and diagrams, pictures and photographs, official reports, Turkish books, collections of zoology and ethnography, etc.

## FALKLAND ISLANDS.

The Falkland Islands, consisting of the east and west Falkland, and about 100 other smaller islands, are situated in the South Atlantic Ocean ; area about 7,600 square miles ; population, 1,553.

These islands were discovered by Davis in 1592. In 1763 they were taken possession of by France. Subsequently they were held by the Spaniards until 1771, when they were for a time given up to Great Britain. In 1820 the Republic of Buenos Ayres established a settlement on these islands, which was destroyed by the Americans in 1831. In 1833 they were taken possession of by the British Government for the protection of the whale fishery.

The Government is administered by a Governor, aided by an Executive and Legislative Council, the members of both councils being appointed by the Crown.

Stanley is the chief town and seat of Government.

Wild cattle and horses are found in large numbers on these islands, and their chief exports consist of hides, horns, hoofs, bones and tallow.

With the exception of a photograph their exhibit consisted of natural products.

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* Photographs of similar threshing machines can be seen at the Educational Museum.

# THE EMPIRE OF INDIA.

India is the central and most important peninsula of Southern Asia. It has an area of 1,500,000 square miles, with a population of about 250,000,000.

From the time of the expedition of Alexander the Great to the Punjab, in the year 330, down to 1600, settlements in India have been established at different periods by Mahometans, Tartars, Portuguese, Dutch, French, and English.

British India is about three-fifths of this vast country. The remainder is divided between different states, which are more or less dependent upon British authority. The British Empire in India commenced with the incorporation of the English East India Company, in 1600. This company existed for two and a-half centuries, having all the provinces of British India under its rule until the mutiny of 1857.

In 1858, at a grand *Durbar* held at Allahabad, Lord Canning announced that the Queen of England had assumed the entire Government of India. In 1877, at another more magnificent *Durbar*, held by Lord Lytton, at Delhi, and attended by all the great feudatory princes and chiefs, Her Majesty was proclaimed Empress of India.

Nearly a million square miles of territory, with a population of about 200,000,000, are now under British administration.

The last possession in India annexed by England was Upper Burmah, an area of about 192,000 square miles, with a population of from 3,000,000 to 4,000,000. War was declared by King Theebaw, in November, 1885. The King was captured at Mandalay during the same month, and the following proclamation was issued on 1st January, 1886, by the Viceroy and Governor-General of India.

"By command of the Queen-Empress, it is hereby notified that the territories formerly governed by King Theebaw, will no longer be under his rule, but become part of Her Majesty's dominions, and will, during Her Majesty's pleasure, be administered by such officers as the Viceroy and Governor-General of India may from time to time appoint.

(Signed) DUFFERIN."

India is governed as follows :—

Ajmere, Berar, Coorg, Andaman Islands, (Port Blair), under the Viceroy as Governor-General, who is Governor of the whole of India ; Bengal (Lieutenant-Governor); N. W. Provinces and Oudh (Lieutenant-Governor); Punjab (Lieutenant-Governor); Central Provinces (Chief Commissioner) ; British Burmah (Chief Commissioner) ; Assam (Chief Commissioner) ; Madras (Governor) ; Bombay (Governor) ; Burmah (annexed 1886.)

The Lieutenant-Governors, Chief Commissioners, etc., are appointed by the Viceroy, subject to the approval of the Crown.

The trade of India is of vast importance ; the total exports and imports amount together to over $750,000,000 annually.

The Government of India took a great interest in the Colonial and Indian Exhibition. At the first meeting of the Commissioners, in March, 1885, the Earl of Kimberley, Secretary of State for India, said, "There is, perhaps, nothing more desirable for India, than that its products and industries should be well known in this country, although we have much more to learn from them than to teach them. Their beautiful manufactures, which they have produced for so many ages, have proved that there is a knowledge of many branches of art, which it would be a thousand pities should be diminished under our rule."

The collections were made with the assistance of the Governments of Presidencies and Provinces, and of the Rulers of native States, and formed three divisions. I. The Art ware Courts. II. The Economic Court. III. The Administrative Court.

The Art exhibits were divided with reference to locality, and not with reference to classification ; this was done for the purpose of showing the character of the Art manufactures in the different Provinces of India.

Two sections the whole length of the Main Exhibition Building were occupied with these exhibits, and a very ingenious plan was adopted for showing one of their surviving branches of decorative art. It is the custom, even at the present day, for men of wealth to decorate their houses, and those of the gods they worship, with carvings in wood and stone. Each of the Provinces had one or more separate alcoves in which to exhibit their goods. The fronts of these alcoves consisted of carved screens, raised on arches, thus forming double façades the entire length of the building.

## I.—ART-WARE COURTS.

The Art-ware Courts are entered through a carved gateway, sent by His Highness the Maharajah of Jeypore. The gateway is surmounted by a drum-house, such as are usually found over the entrances to royal residences or temples, in which musicians play. In the kiosk on the top were arranged figures representing musicians with their instruments.

### Rajputana Court.

Twenty states forming the agency known by this name, under the Governor-General, exhibited in this Court. The Rajputana States represents an area of 130,000 square miles, with a population of ten millions. They stretch from the India agency to Sindh, and from Gujerat to the Punjab.

The Jeypore screen in this Court may be referred to as an illustration of the native art talent of Indian workmen. The only instructions issued to the wood-carvers were, that as great a variety of patterns should be employed as possible, the ornaments to be purely Indian. The men draw rough outlines with a pencil or even the graver, and each carver does what is right in his own eyes, subject to the approval of the master workman.

The Commissioner remarks that "the city of Jeypore is in all matters of art the most active of the Rajputana States. The local School of Art, under the patronage of the enlightened Rajah, has endeavoured to improve the indigenous art of the town by attending to details, so as to correct the habit of merely repeating the designs which have been handed down from their forefathers."

In this Court were specimens of gold and silver plate, lacquered-ware, inlaid work, glazed pottery, and textile fabrics. In addition the Jeypore School of Art sent a collection of articles in brass, copper, and mixed materials, which displayed excellence of work.

### Central India Court.

This is a numerous group of States also placed under the charge of the Governor-General.

The area is 75,000 square miles, with a population of over nine millions.

The principal screen in this Court is intended to illustrate Buddhist and Hindoo sculpture, as found in Central India. The collection included stone-carving, jewellery, ancient and modern arms, lacquer-work, textile fabrics and embroideries.

### Bombay Court.

This Presidency has an area of 124,134 square miles, and a population of sixteen and a-quarter millions. The native states add to these totals 73,000 square miles, and seven millions of inhabitants. Besides these, the State of Baroda, which contains 8,570 square miles, and a population of 2,185,000, was represented.

The design for the screen in this Court was made by the Superintendent of the Bombay School of Art. In the centre isle of the chief India Court was the Baroda Pigeon House; an admirably carved structure, which from its lofty position, was used by visitors as a point at which friends missing each other in the crowds might meet during the exhibition. This collection embraced wood-carving, inlaid work, pottery, metal work, lacquered-ware, horn work, ivory work, and gold and silver work, etc. *Repoussé* work in silver is a specialty in this Province.

### BENGAL COURT.

The Bengal Territory, governed by the Lieutenant-Governor of Bengal, includes Bengal proper, Behar, Orissa, and Chota Nagpur, containing an area of 150,588 square miles (exclusive of Sonderbands), and a population of 66,691,546—nearly one-third of the population of British India. In addition, the native states in connection with Bengal have an area of 36,664 square miles, and a population of nearly thirty-five millions.

The screens in this Court were intended to illustrate by means of *papier mache* castings, the styles of architecture of Hindoo and Mohammedan buildings in Bengal proper. The northern screen represents the Temple of Krishna, built between 1704 and 1722. The entire surface of this building is covered with terra-cotta reliefs, representing figure subjects taken from the daily life of the people. Casts, made in a mixture of *papier mache* and plaster of Paris, were made from those reliefs, and being coloured to match the originals, gave a good representation of the general effect of the ancient temple.

The collection included carving, sculpture and clay models, jewellery, inlaid work, lacquered-wares, textile fabrics, etc.; also specimens of carving in wood and repoussé copper electro-plated panels after Hindoo ornamental designs, from the Calcutta Government School of Art.

### NEPAL COURT.

Nepal stretches from the southern ranges of the Himalayas, twenty miles into the "plain," and 700 miles along the Northern India frontier.

The area is about 54,000 square miles, and the population is supposed to be about two millions.

The Art-ware of this little-known territory was represented with examples of the special arts and industries which belong almost exclusively to the Newars, whom the Ghurkhas conquered about 1768.

In this Court was an illustration of one of the degrading customs of this country, which is not open to European tourists; it was a saddle used in the households of wealthy persons. These saddles are strapped on the backs of servants for carrying their masters and mistresses up or down stairs, or from room to room.

### NORTH-WEST PROVINCES AND OUDH COURT.

These Provinces and Oudh, forming together the upper portion of the great valley of the Ganges, have an area of 106,111 square miles, with a population of forty-four millions.

The seat of Government has been transferred from Agra to Allahabad.

One of the screens in this Court had a row of pillars from Agra, inlaid with precious stones, and presented by the Government of India to the national collection at South Kensington.

In this Court the general exhibits were similar to the preceding, but amongst the textile manufactures might be noticed a peculiarity not seen in the other Courts. The weavers interweave at the time of manufacture any design that may be suggested to them. Verses and sentences are most common, and these include passages from the Koran and Vedas, and others from Dr. Watts' songs and hymns, etc.

### THE PUNJAB COURT.

This Province, including the territory surrounding Delhi, has an area of 106,632 square miles, and a population of nearly nineteen millions. There are also 39 native states in connection with the Province, comprising an area of 36,000 square miles and two million inhabitants.

In addition to the specimens of carving, jewellery, etc., this Court contained furniture, and excellent examples of textiles, including cotton and woollen fabrics, silks, and embroideries.

## KASHMIR COURT.

The State of Kashmir extends from the plains of the Punjab across the central range of the Himalayas, towards Chinese Tartary and Tibet. The valley of Kashmir forms but a small portion of the whole area, which is estimated at 810,000 square miles, with a population of 1,500,000. The Maharajah presents annually, by way of tribute to his Suzeran, 1 horse, 12 goats, and three pairs of the celebrated Kashmir shawls.

In this Court are specimens of Kashmir *papier maché* work, carving, textiles, etc. Kashmir shawls were also exhibited, but it is said that this manufacture is dying out. The revenue from this source was formerly from $2,000,000 to $3,000,000 per annum, but within the past ten years the demand has decreased so much that it is stated that the art of weaving the finest shawls will probably be extinct in fifteen or twenty years, unless the Government takes steps to preserve the trade.

## CENTRAL PROVINCES COURT.

The Central Provinces, of which Nagpur is the headquarters, have an area of about 85,000 square miles, with a population of about 10,000,000. There are also fifteen native states, total area 29,000 square miles, with a population of nearly 2,000,000.

This Court had exhibits of wood, and stone carving, jewellery, textile fabrics, silk, etc.

## ASSAM COURT.

The Province of Assam includes the Upper Brahmaputra Valley, or Assam Proper. The area is computed at 46,000 square miles, total population about 5,000,000.

Assam is chiefly famous for its tea plantations. The art ware exhibits were not numerous in this Court.

## BURMAH COURT.

British Burmah has an area of 87,220 square miles; before the recent annexation, its population was 3,736,771.

This Court contained a large collection of art work in wood and metals, textiles, etc.

## MADRAS COURT.

Madras has an area of 139,900 square miles, with a population of 30,688,500. The city of Madras, the third greatest in India, is entirely of English origin, and dates from the building of the British factory in 1639.

The screen for this Court was designed by the Superintendent of the Madras School of Art, and executed under his direction by Madras carpenters and carvers.

The Madras School of Art exhibited a candlestick and a *lota* in solid silver, made in the school; a collection of water vessels of brass, ornamented with silver and copper flowers; a carved window and native doorway, the work of one of the pupils, and a large variety of specimens of glazed and unglazed pottery, altogether the work of the school. The forms and colors of the old Madurra pottery are carefully followed.

Embroideries and laces were also exhibited by the Hobart School of Mahommedan girls.

## HYDERABAD COURT.

Hyderabad, or the Dominion of the Nizam, has an area of 81,807 square miles, and a population of nearly 10,000,000. The Nizam is the chief Mahommedan native ruler, and a descendant of the Mighal Nizam-ul-Mulkh, (Regulator of the Empire).

The principal exhibits in this Court were manufactures of the ornamental metal ware of Bidan, which consisted of over one hundred different articles used for domestic purposes. The Commissioners say, "No dowry is considered complete among the better class of Mahommedans unless a complete set of *bidri* ware, from bed-legs to a spittoon, is included. The high prices often render it necessary for the father of a family to begin his collection years before his daughter is marriageable."

### MYSORE AND COORG COURT.

Mysore and Coorg are continuous Hill States. Mysore is a native state ruled over by a descendant of the Hindoo chieftain from whom Hyder Ali usurped it. The total area is over 25,000 square miles, with a population of over 4,000,000.

Coorg is under the direct administration of the Governor-General. Its area is 1,600 square miles, with a population of about 180,000.

The exhibits in this Court consisted of sculpture, lacquer-ware, jewellery and textile fabrics.

## THE ECONOMIC, OR IMPERIAL COURT.

This Court contained the raw products and rough manufactures which illustrate the resonrces of India, also minerals and ores, and geological maps, and models of Bengal farmers' homesteads and agricultural implements.

## THE ADMINISTRATIVE COURT.

This Court included 1, Department of Revenue and Agriculture; 2, Department of Finance and Commerce; 3, Home Department, including Education; 4, Public Works Department; 5, Legislative Department; 6, Foreign Department; 7, Military and Marine Department.

### *Educational Exhibit.*

The Home Department exhibited illustrations of the means and appliances employed in the schools under their jurisdiction. A model of an indigenous school in Bombay was also exhibited.

In 1881, there were under instruction in India 2,879,571 males, and 155,268 females; out of the entire population only 7,646,712 males and 277,207 females could read and write. The number given in the statistics for 1881 who could not read or write was 217,171,284.

In 1882–3, the number of schools inspected was 111,237, with 2,790,061 pupils.

# THE IMPERIAL INSTITUTE.

The proposition to establish a permanent institute representing the arts, manufactures and commerce of the colonies and India, has been under discussion in England for several years.

In 1874-5, the Chambers of Commerce and the Associated Chambers of Commerce of the United Kingdom, memoralized Her Majesty's Government on the subject of establishing an Imperial Museum.

In 1876, the *Times* fully discussed this question, giving an estimated cost of site, cost of buildings and cost of maintenance. That year was considered to be opportune, as the Centennial Exhibition was being held, it being supposed that arrangements might be made at its close for transferring the colonial exhibits from Philadelphia to the Imperial Museum.

The amount proposed to be raised was $2,000,000 for site and buildings; in addition, the estimates for maintenance amounted to $100,000 per annum. The promoters of the scheme were of opinion that this expenditure should be shared equally between England, and India and the colonies.

When the matter was publicly debated, it was considered that there would be no difficulty in raising one-half of the required expenditure from India and the colonies, but as regarded England, the question arose whether it was advisable to spend so much money for a museum, as they were then erecting the Natural History Museum, at a cost of $1,760,000, and, in addition, the grants for maintenance of museums and kindred institutes, amounted to over $1,000,000 per annum.

There is no doubt that the principal reason the Imperial Museum was not proceeded with in 1876, was because the Government did not vote the necessary funds.

After the close of the Paris Exhibition in 1878, efforts were again made to renew the project, but from various reasons they fell through.

The present seems to be a very fitting time for the establishment of such an Institution; the success of the Colonial and Indian Exhibition, and the approaching Jubilee of the Queen, were no doubt sufficient inducements for His Royal Highness the Prince of Wales to take a personal interest in endeavoring to establish an Imperial Institute, and for that purpose the Prince addressed the following letter to the Lord Mayor of London:—

MARLBOROUGH HOUSE.
Pall-Mall, S.W., Sept. 13.

DEAR LORD MAYOR,—My attention has been frequently called to the general anxiety that is felt to commemorate in some special manner the approaching Jubilee of Her Majesty's reign.

It appears to me that no more suitable memorial could be suggested than an Institute which should represent the Arts, Manufactures and Commerce of the Qeeen's Colonial and Indian Empire.

Such an Institution would, it seems to me, be singularly appropriate to the occasion, for it would illustrate the progress already made during Her Majesty's reign in the Colonial and Indian Dominions, while it would record year by year the development of the Empire in the arts of civilization.

It would thus be deeply interesting to Her Majesty's subjects, both within and beyond these islands, and would tend to stimulate emigration to those British territories where it is required, to expand the trade between the different British communities, and to draw closer the bonds which unite the Empire.

It would be at once a Museum, an Exhibition, and the proper locality for the discussion of Colonial and Indian subjects.

That public attention has already been forcibly directed to these questions is sufficiently proved by the remarkable success which is attending the Colonial and Indian Exhibition at South Kensington, and I confidently anticipate that arrangements may be made whereby the more important collections, which have so largely contributed to this success, will be placed at the disposal of the Institution.

I have much satisfaction in addressing this letter to your lordship as Chief Magistrate of the capital of the Empire, and to invite your co-operation in the formation of this Imperial Institute of the Colonies and India, as the memorial of Her Majesty's Jubilee by her subjects.

Should your lordship concur in this proposal, and be willing to open a fund at the Mansion House, I would suggest that the contributions received be vested in a body of trustees, whom the Sovereign would be asked to nominate, and I would further suggest that the institution should be under the permanent presidency of the Heir apparent to the Throne.

I remain, dear Lord Mayor,
Yours truly,

(Signed), ALBERT EDWARD P.

The Right Honorable the Lord Mayor.

In reply to this communication, the Lord Mayor replied as follows :—

The Mansion House,
London, E.C., Sept. 17.

Sir,—I have the honor to acknowledge the receipt of your Royal Highness's letter of the 13th inst. and, in reply, to express the great pleasure it will afford me to give the heartiest co-operation and aid in the formation of the proposed Imperial Institute of the Colonies and India as the memorial of Her Majesty's Jubilee by her subjects.

Your Royal Highness truly states that general anxiety is felt to commemorate in some special manner the approaching jubilee of Her Majesty's reign. There will, I am sure, be a universal desire to give expression in a suitable and, if possible, adequate way to the deep attachment, veneration, and loyalty which the Queen's subjects in all parts of her vast dominions entertain for a Sovereign whose long and illustrious reign has been productive, under Providence, of many blessings to her people, and been rendered memorable by the striking progress in civilization and prosperity developed throughout the Empire.

Difficult as it may be to signalize in a commensurate way the feelings which are thus naturally emphasized at the approach of the Jubilee of Her Majesty's reign, I am convinced that the proposal which your Royal Highness indicates, and which has the support of your influence, will be considered singularly appropriate.

It will, therefore, give me much satisfaction to open a fund at the Mansion House for the receipt of contributions, as suggested by your Royal Highness.

I have the honor to remain, Sir,
With the greatest respect,
Your Royal Highness' most dutiful and most obedient servant,

(Signed), JOHN STAPLES, Lord Mayor.

His Royal Highness the Prince of Wales, K.G.

So far as commemorating the jubilee of Her Majesty's reign is concerned, the proposal of His Royal Highness met with the approval of all classes, but England made very little response in contributing funds, although the colonies were quite willing to do so.

The British press discussed the scheme very fully, and while they all agreed on the desirability of founding an institute which, in addition to commemorating Her Majesty's jubilee, would also show the immense growth of the British Empire, they recommended that the site of the building should be decided upon, and the trustees appointed before subscriptions should be asked for. Some persons argued that the Institute should be made representative of the Empire ; that there should be a genuine representation of the colonial feeling which has not always been the case with Crown appointments.

It was also rumored that British Manufacturers were not disposed to contribute to the support of an institute which would be opposed to their interests, by the introduction of various branches of manufacture in competition with their own.

This gave rise to the appointment of a Royal Commission, to report on the best method for conducting and Imperial Institute. The Commission recommended that Great Britain should also be represented in the Imperial Institute. This is only fair, for those who contribute towards a public enterprise shouid certainly share any advantages to be derived therefrom.

The present proposition is, that the foundation stone of an Imperial Institute shall be laid on the day of Her Majesty's Jubilee. The site has not yet been decided upon, but there is every probability that the new buildings will be erected on the grounds where the Colonial and Indian Exhibition was held last year. The old buildings have already been removed.

The question now arises, what benefit will Canada derive from an Imperial Institute?

1. It is to be premised that each of the colonies will retain its own individuality, by having sufficent accommodation for a museum and offices; such an arrangement would be advantageous by concentrating all the colonial offices now dispersed over London.

2. It is considered that it would be more economical, as the expenditure for rents would be less, and the museum would be invaluable to the agents of the respective colonies in their dealings with commercial men or intending immigrants.

3. The museum would be a permanent advertisement of Canadian products and trade collections. Hitherto, Canada has only had an opportunity of exhibiting her products and manufactures to Europeans about once in each decade, this is doubtless of considerable value, but it is well known that private individuals who have amassed colossal fortunes in trade by advertising, have done so by constant and continual advertising. The same rule which applies in this case to the private individual is applicable to a colony. This can be proved by the action of Australia.

Prior to the Centennial Exhibition of 1876, some of the colonies of Australia voted money for the establishment of a colonial museum in London, and part of their permanent collection was exhibited at Philadelphia. Not knowing the date of the establishment of this museum I will take the year 1874. On comparing the value of exports from Australia to Great Britain, I find that the exports for the year 1884 amounted to over seven millions of pounds sterling ($35,000,000) more than the exports amounted to in 1874.

We will now see what Canada has done during the same period. In 1874, the exports to Great Britain amounted to $45,003,882; in 1884, the exports amounted to only $43,736,227; a decrease of $1,267,655.

It is therefore evident that permanent exhibitions are of great value to a colony, and if Canada is to find a larger market for her products and manufactures, we must not be satisfied with arousing temporary attention to our goods, as was done at the Colonial Exhibition, but must endeavor to increase our trade by keeping the importance of our forests, mines and fisheries, and our trade manufactures permanently before the people of other nations.